DETERMINATION REPORT
PJSC "OBLTEPLOCOMUNENERGO"

DETERMINATION OF THE "REHABILITATION OF THE HEAT AND WATER SUPPLY SYSTEMS IN VINNYTSIA REGION"

REPORT NO. UKRAINE-DET/0632/2012

REVISION NO. 02

BUREAU VERITAS CERTIFICATION

Report No: UKRAINE-det/0632/2012

DETERMINATION REPORT

Date of first issue: 24/09/2012	Organizational unit: Bureau Veritas Certification Holding SAS
Client: PJSC "Oblteplocomunenergo"	Client ref.: Mr. Ivan M. Lusta

Summary:
Bureau Veritas Certification has made the determination of the "Rehabilitation of the Heat and Water Supply Systems in Vinnytsia Region" project of PJSC "Oblteplocomunenergo" located in Vinnytsia region, Ukraine on the basis of UNFCCC criteria for the JI, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

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

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

In summary, it is Bureau Veritas Certification's opinion that the project correctly applies Guidance on criteria for baseline setting and monitoring and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.

Report No.: UKRAINE-DET/0632/2012	Subject Group: JI
Project title: "Rehabilitation of the Heat and Water Supply Systems in Vinnytsia Region"	
Work carried out by: Rostislav Topchiy– Team Leader, Lead Verifier Vitaliy Minyaylo – Team Member, Verifier Denis Pishchalov - Team Member, Financial Specialist	
Work reviewed by: Ivan Sokolov - Internal Technical Reviewer Vyacheslav Yeriomin – Technical Expert	
Work approved by: Ivan Sokolov – Operational manager	
Date of this revision: 25/09/2012	Rev. No.: 02 / Number of pages: 77

Indexing terms

Kyoto Protocol, JI, Emission Reductions, Determination

☒ No distribution without permission from the Client or responsible organizational unit

☐ Limited distribution

☐ Unrestricted distribution

Bureau Veritas Certification Holding SAS

Table of Contents *Page*

1 INTRODUCTION

PJSC "Oblteplocomunenergo" has commissioned Bureau Veritas Certification to determine its JI project "Rehabilitation of the Heat and Water Supply Systems in Vinnytsia Region" (hereafter called "the project") at the Vinnytsia Region, Ukraine.

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

1.1 Objective

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

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

1.2 Scope

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

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

1.3 Determination team

The determination team consists of the following personnel:

Rostislav Topchiy
Bureau Veritas Certification, Climate Change Lead Verifier

Vitaliy Minyaylo
Bureau Veritas Certification, Climate Change Verifier

Denis Pishchalov
Bureau Veritas Certification, Financial Specialist

This determination report was reviewed by:

Ivan Sokolov

Bureau Veritas Certification, Internal Technical Reviewer

Vyacheslav Yeriomin

Bureau Veritas Certification, Technical Expert

2 METHODOLOGY

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

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

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

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

2.1 Review of Documents

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

To address Bureau Veritas Certification corrective action and clarification requests, Institute of Engineering Ecology revised the PDD and resubmitted it on 21/09/2012.

The determination findings presented in this report relate to the project as described in the PDD version 04.

2.2 Follow-up Interviews

On 23/08/2012 Bureau Veritas Certification performed on-site interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of PJSC "Oblteplocomunenergo", ME VCC "Vinnytsiamiskteploenergo", ME "Vinnytsiaoblteploenergo", DE "Mayak", ME "Vinnytsiaoblvodokanal" and Institute of Engineering Ecology were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
PJSC "Oblteplocomunenergo" and other project partners	➢ Project history ➢ Project approach ➢ Project boundary ➢ Implementation schedule ➢ Organizational structure ➢ Responsibilities and authorities ➢ Training of personnel ➢ Quality management procedures and technology ➢ Rehabilitation/Implementation of equipment (records) ➢ Metering equipment control ➢ Metering record keeping system, database ➢ Technical documentation ➢ Monitoring plan and procedures ➢ Permits and licenses ➢ Local stakeholder's response.
CONSULTANT: Institute of Engineering Ecology	➢ Baseline methodology ➢ Monitoring plan ➢ Additionality proofs ➢ Calculation of emission reduction.

2.3 Resolution of Clarification and Corrective Action Requests

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

If the determination team, in assessing the PDD and supporting documents, identifies issues that need to be corrected, clarified or improved with regard to JI project requirements, it will raise these issues and inform the project participants of these issues in the form of:

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

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

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

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

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

3 PROJECT DESCRIPTION

Project objective is to reduce greenhouse gas emissions due to fuel, in particular natural gas (which is imported to Ukraine), consumption reduction, as well as power consumption reduction, by means of rehabilitation of the heat and water supply systems in Vinnytsia region, including boiler-houses, CHPs, water (WPS) and sewage (SPS) pumping stations, and heat and water distribution network equipment replacement, modernization and rehabilitation. The purpose of the project is sustainable development of the Vinnytsia region through implementation of energy saving technologies.

Project is realized by following heat and water supplying enterprises:

1. Public Joint stock company “Oblteplocomunenergo” (further mentioned as PJSC “Oblteplocomunenergo”);
2. Municipal Enterprise of Vinnytsia City Council “Vinnytsiamiskteploenergo” (further mentioned as ME VCC “Vinnytsiamiskteploenergo”);
3. Municipal Enterprise “Vinnytsiaoblteploenergo” (further mentioned as

ME “Vinnytsiaoblteploenergo”);
4. Daughter enterprise “Teplocomunenergo Mayak” PJSC “Mayak” (further mentioned as DE “Mayak”);
5. Municipal Enterprise “Vinnytsiaoblvodokanal” (further mentioned as ME “Vinnytsiaoblvodokanal”).

PJSC “Oblteplocomunenergo” represents the interests of all participants of project activity as an Applicant and Supplier of GHG emission reduction units. ME VCC “Vinnytsiamiskteploenergo”, ME “Vinnytsiaoblteploenergo” and DE “Mayak” generate and supply heat energy in forms of heat, hot water and steam. Generated heat is totally sold to local consumers, namely householders, municipal consumers and state-owned organizations. Electricity generated at CHPs is delivered to the state grid. ME “Vinnytsiaoblvodokanal” render all complex of centralized water supply and sewage removal services for Vinnytsia City. The market for heat, electricity and water is stable during years.

Project includes 89 boiler-houses (including 2 combined heat and power plants CHP-1 and CHP-4) with 307 installed boilers and heat supply stations (HSS) related to them, and 272 km in the 2-pipe calculation of heat distribution networks, 20 water (WPS) and 14 (SPS) sewage pumping stations, 576 km of water supply network, 485 km of sewerage pipes, water intake and sewage treatment facilities.

a) Situation existing prior to the starting date of the project:
The common practice for the district heating and water supplying enterprises in Ukraine including enterprises that implement the project is to fulfil annual minimal repairing of the heat and water supply system to keep them working. In fact, mainly repairing of network’s parts and boilers which might cause accidents are commonly executed.

b) Baseline scenario:
For Baseline scenario, the economically feasible and realistic scenario with very slow rehabilitation activities was chosen. Tariffs for heat and water do not include the resources for prospective rehabilitation of the heat and water supply systems, only the resources for probable necessary repairing after possible accidents. Minimal annual repairing doesn’t lead to reduction of baseline emissions, because along with degradation of the whole systems with efficiency droop at other objects, the overall actual emissions of Supplier would stay at approximately the same level. This scenario is not environmentally favorable for the near future, since GHGs emissions of Supplier will continue to be kept at the same level or even higher, but economically such scenario is attractive.

c) Project scenario

The project employs the increase of fuel and energy resources (FER) consumption efficiency to reduce greenhouse gas emissions relative to current practice. The following activities will ensure fuel and energy resources saving:

- liquidation of low efficient boiler-houses with:
  - ✓ switching load to the high efficient boiler-houses and/or CHP plants;
  - ✓ construction of modular mini-boiler-houses;
- replacement of obsolete boilers with high efficient ones, including switching of boiler-houses to renewable resources (wood);
- rehabilitation of boilers with replacement and preventive maintenance measures for boilers burners, heated surfaces, etc.:
- optimization of heat load allocation and operational mode of equipment;
- optimization of heat supply network organization and network rehabilitation;
- consecutive switching of heat supply networks to preliminary insulated pipes;
- optimization of water load allocation;
- replacement of pipes of water supply and sewage networks;
- technical re-equipment of heat supply stations with highly effective heat exchangers and implementation of IHSS;
- implementation of heat recovery equipment;
- implementation of technology for carbon dioxide binding from flue gases;
- installation of frequency controllers at electric drives of pumps, blow fans and smoke exhausters;
- replacement / rehabilitation of pumps;
- installation of heat pump at SPS-3A for heating the station buildings;
- improvement of the feeding water quality by optimization of operational mode of water preparation system;
- implementation of control and monitoring systems.

Implementation of the project will provide substantial economic, environmental, and social benefits to the Vinnytsia Region. Social impact of the project is positive since after project implementation the heat and water supply services will be improved.

The identified areas of concern as to Description of the project, project participants response and BV Certification's conclusion are described in Appendix A Table 2 (refer to CAR 01, CAR 02, CAR 03, CL 01, CL 02, CL 03, CL 04, CL 05, CL 06).

4 DETERMINATION CONCLUSIONS

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

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

The Clarification and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Determination Protocol in Appendix A. The determination of the Project resulted in 13 Corrective Action Requests, 11 Clarification Requests and 01 Forward Action Request.

The number between brackets at the end of each section corresponds to the DVM paragraph.

4.1 Project approvals by Parties involved (19-20)

The project has already received Letter of Endorsement № 2658/23/7 on the JI project “Rehabilitation of the Heat and Water Supply Systems in Vinnytsia Region” dated 19/09/2012 issued by State Environmental Investment Agency of Ukraine.

Bureau Veritas Certification received this letter from the project participants and does not doubt its authenticity.

As for the time being no written approvals of the project by Parties involved are available. After receiving Determination Report from the Accredited Independent Entity the project documentation will be submitted to the Ukrainian Designated Focal Point (DFP) which is State Environmental Investment Agency of Ukraine, for receiving a Letter of Approval. The written approval by another Parties involved will be obtained later on.

Bureau Veritas Certification will check the letters against paragraphs 19 - 20 of the DVM.

As the project has no approvals by the Parties involved, CAR 04 remains pending and will be closed after report finalizing (refer to the Appendix A).

4.2 Authorization of project participants by Parties involved (21)

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

4.3 Baseline setting (22-26)

The PDD explicitly indicates that using a methodology for baseline setting and monitoring developed in accordance with appendix B of the JI guidelines (hereinafter referred to as JI specific approach) was the selected approach for identifying the baseline.

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

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

- The first version of Baseline scenario was a business-as-usual scenario with minimum rehabilitation works balanced by overall degradation of the systems. For this Baseline scenario there are no barriers (no investment barrier since this scenario doesn't require the attraction of additional investments, and no technological barrier since the equipment is operated by existing skilled personnel, and additional re-training is not required), and it represents the common practice in Ukraine.
- The second version of Baseline scenario was to make rehabilitation works without JI mechanism. In this case there exist both investment barrier since this scenario requires the attraction of large additional investments, and due to very large payback time and high risks it is not attractive for investments, and as well the technological barrier since operation of the new modern equipment will require additional re-training of personnel. Rehabilitation of heat and water supply equipment in order to improve its efficiency is not a common practice in Ukraine.
- The third version of Baseline scenario was the shortened project activity, without any of the non-key type of activity, for example elimination of frequency controllers installation, etc., from the project. This makes project economically less attractive, with the longer pay back period.
- Thus, the first version was chosen for Baseline scenario.

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

- The project activities including replacement, modernization and rehabilitation of equipment of boiler-houses, CHPs, water and

sewage pumping stations and heat and water distribution network will increase energy efficiency of the heat and water supply systems in Vinnytsia region, thus enabling them to produce the same amount of heat energy and supply the same amount of water to customers with less fuel and energy resources consumption. Reduced fuel and energy resources consumption will lead to reduction of GHG emissions.

- In the absence of the proposed project, all equipment, including the old low efficient but still workable for a long life period one, will operate in as-usual mode, and any emission reductions will not occur.
- Ukraine has claimed district heating and municipal energy sector as a priority of the national energy-saving development. This is pointed out in the State Program for Reformation and Development of municipal economy for 2004-2010 and for 2009-2014 confirmed by the Law of Ukraine dated 24/06/2004 No. 1869-IV with changes according to the Law of Ukraine dated 11/06/2009 No. 1511-VI, and in the Law of Ukraine “On energy saving” dated 01/07/1994 No. 74/94-VR with changes according to the Law of Ukraine dated 24/05/2012 No. 4845-VI. The Laws of Ukraine “On heat energy supply” dated 02/06/2005 No. 2633-IV and “On drinking water and drinking water supply” dated 10/01/2002 No. 2918-III with changes according to the Law of Ukraine dated 23/02/2012 No. 4434-VI regulate all relations in the heat and water supply markets. This does not considerably change the previously existing practices at the markets, but stimulates the more rigid energy saving and implementation of energy efficient technologies.

All explanations, descriptions and analyses pertaining to the baseline in the PDD were found adequate and the baseline is identified appropriately.

4.4 Additionality (27-31)

The most recent version of the “Tool for the demonstration and assessment of additionality” approved by the CDM Executive Board was used. All explanations, descriptions and analyses are made in accordance with the selected tool.

The PDD provides a justification of the applicability of the approach. Due to the fact that there is no approved CDM baseline and monitoring methodology which is applicable to the project type, the Additionality Tool is applied which is considered as a good practice for additionality justification.

Additionality proofs are provided. Three alternative scenarios to the project activity were identified and proven to be in compliance with mandatory legislation and regulations taking into account the enforcement in the region and Ukraine.

The main source of income of the district heating and water supplying enterprises in Ukraine are payments from customers according to the tariffs that are regulated by the "Procedure of setting tariffs for heat energy, it production, transportation and supplying and for centralized heating and hot water supply services" and the "Procedure of setting tariffs for centralized water supply and sewage removal services" approved by Decree of the Cabinet of Ministries of Ukraine No.869 dated 01/06/2011.

According to these Procedures, tariffs are to be set on the base of the scheduled prime cost and don't allow to obtain benefit from reduction of fuel, power, raw materials, etc. consumption. Any reduction of expenses for these raw inputs should result in decrease of tariffs for the end consumers and corresponding decrease of an enterprise's revenue, thereby the enterprises don't obtain additional revenue.

Investment barriers
The general situation in District Heating sector in Ukraine may be characterized as quite insufficient. The existing district heating systems suffer from the same, well-known problems as those in other Central and European Countries. Old-fashioned Russian technology, oversized equipment, neglected maintenance and repairs, have resulted in increasing inefficiency. Typically, the overall efficiency of the DH systems (from fuel consumption in boilers to heat supplied to the building entrance) is about 50%. Including the losses within the buildings, it is estimated that only one third of the energy of the fuel is useful heat for the final consumers.

Non cost-covering tariffs can not meet the revenue requirements and subsidy payments are too small to cover all costs and are often delayed. In addition, collection rates are going in line with increasing tariffs. The current regulatory framework and tariff policy makes it difficult to attract private investors to district heating. Yet the main stakeholders, e.g. municipalities and residents, in most cases lack the necessary financing capacity. Yet, the current policy framework does not make district heating attractive for investment, which undermines its sustainability. Barriers to investment and efficiency improvements include (but are not limited to): the current pricing policy; lack of metering; the focus on heat production, not consumption; unclear ownership and management of buildings; and difficult access to financing for interested parties. Moreover, no bank gives credits without the proper guarantees. District heating enterprises that implement the project are communal ownership enterprises, and all

theirs main funds belong to territorial population. For this reason the property of enterprises can not be a credit mortgage. Thus, the DH system rehabilitation without additional external investments (grants, subsidy, subvention, etc.) practically isn't possible, and in current situation practically only municipal or state financing might be used for this purposes. But Ukrainian government does not have enough funds for this, and insufficiency and delay of the budget financing of activity in this sector is the main its problem.

Technological barriers

1. Not all proposed technologies are widely approved already. Qualification of operational personal for implementation of the new technologies may be not sufficient to provide project implementation properly and in time.

Most of heat and water supply enterprisers in Ukraine fulfill annual minimal repairing of these systems to keep them working. Particularly they execute repairing of network's parts and boilers that might cause accidents. The most economically feasible and realistic scenario without carbon credits sales is a very slow rehabilitation activity, instead of making a major overhaul.

2. Efficiency of installed equipment could be lower than was claimed by producers or equipment may have substantial defects.

3. Available amount of natural gas since Ukraine is dependent on Russian natural gas delivery. Ukrainian Government makes attempts to reduce this dependence.

Common practice analysis

The common practice for heat and water supply enterprises in Ukraine without JI mechanism is only a necessary repair of the old equipment, mainly in emergency cases, and not the renewal. Only with the JI component it is possible to obtain the necessary additional funds for real rehabilitation of the heat and water supply systems.

This is confirmed by the present situation that the real comprehensive rehabilitation of the heat and water supply systems in Ukraine is performed only by the enterprises participating in JI projects. There are at least 9 district heating rehabilitation projects with JI mechanism in Ukraine at advanced stages beside this project: for DH systems in Chernihiv region, Donetsk region, AR Crimea, Kharkiv city, Rivne region, Dnipropetrovsk Region, Luhansk city, Zaporizhzhia City, Cities Makiivka, Mariupol, Artemivsk of Donetsk region, and at least 4 JI projects on rehabilitation of water supply systems, such as "Modernization of water supply and drainage system "Luganskvoda Ltd."", "Development and

improvement of water supply system, drainage system and wastewater treatment of “Infox Ltd.” branch “Infoxvodokanal””, “Development and Upgrade of District Water Supply and Disposal System in Zaporizhzhia City”, “Development and improvement of water supply system, drainage system and wastewater treatment of City Communal Enterprise “Mykolayivvodokanal””. But JI project activities are not to be included in Common practice analysis.

All projects on rehabilitation of heat and water supply systems in Ukraine are being implemented only within the framework of the Kyoto Protocol JI mechanism. In the absence of additional financing (such as grants, other non-commercial finance terms, carbon credits, etc.) implementation of these projects would be impossible. Application of the JI mechanism is the only incentive to implement such projects.

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

The identified areas of concern as to Additionality, project participants response and BV Certification’s conclusion are described in Appendix A Table 2 (refer to CAR 05, CAR 06, CAR 07, CAR 08).

4.5 Project boundary (32-33)

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

(i) Under the control of the project participants, such as CO_2 emissions from fuel (natural gas) combustion in boilers, CO_2 emissions from power plant(s) due to electricity production to the grid, that is consumed by heat and water supply systems, reduced CO_2 emissions from fuel (natural gas) combustion in boilers due to increased overall efficiency and fuel saving of the heat supply system as a whole, reduced CO_2 emissions from power plant(s) due to reduction of electricity consumption by heat and water supply systems due to implementation of energy saving measurements;

(ii) Reasonably attributable to the project such as CO_2 emissions from fuel extraction and transportation, CO_2 emissions from power plant(s) due to electricity consumption used for heating by consumers of Vinnytsia region, reduced CO_2 emissions from power plant(s) due to reduction of electricity consumption for heating by consumers of Vinnytsia region, reduced CO_2

emissions from fuel extraction and transportation due to fuel saving; and

(iii) Significant, i.e., as a rule of thumb, would by each source account on average per year over the crediting period for more than 1 per cent of the annual average anthropogenic emissions by sources of GHGs, or exceed an amount of 2,000 tonnes of CO_2 equivalent, whichever is lower.

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

4.6 Crediting period (34)

The PDD states the starting date of the project as the date on which the implementation or construction or real action of the project began, and the starting date is 03/06/2003, which is after the beginning of 2000.

The PDD states the expected operational lifetime of the project in years and months, which is 29 years 7 months (355 months).

The PDD states the length of the crediting period in years and months, which is 25 years or 300 months and its starting date as 01/01/2008, which is on the date the first emission reductions are generated by the project.

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

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

The identified areas of concern as to Crediting period, project participants response and BV Certification's conclusion are described in Appendix A Table 2 (refer to CL 07).

4.7 Monitoring plan (35-39)

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

The monitoring plan describes all relevant factors and key characteristics that will be monitored, and the period in which they will be monitored, in

particular also all decisive factors for the control and reporting of project performance, such as statistics data; quality control (QC) and quality assurance (QA) procedures, schemes of monitoring system and data collection for Monitoring Report, responsibilities for data management the operational and management structure that will be applied in implementing the monitoring plan.

The monitoring plan specifies the indicators, constants and variables that are reliable (i.e. provide consistent and accurate values), valid (i.e. are clearly connected with the effect to be measured), and that provide a transparent picture of the emission reductions to be monitored such as natural gas consumption by boiler houses and CHPs, electricity consumption by boiler-houses and CHPs and heat supply stations, electricity generation by a CHP, averaged net calorific value of natural gas, heat energy consumption by the water supply system, electricity consumption by water supply system, carbon emission factors for natural gas, for electricity consumption and generation, average outside temperature during the heating period, average inside temperature during the heating period, number of consumers of hot water supply service, heated area for every boiler house, averaged heat transfer factor of heated buildings in the base year, heated area of reconstructed buildings with application of new heat insulation, heated area of newly connected buildings with application of the new heat insulation, heat transfer factor of buildings with new heat insulation, heating period duration for every boiler house, duration of period of hot water supply service, maximum connected load to a boiler-house that is required for heating, connected load to a boiler-house that is required for hot water supply service, standard specific discharge of hot water per personal account, total volume of water supplied to consumers.

The monitoring plan explicitly and clearly distinguishes:

(i) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination, which are absent.

(ii) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination, which are absent.

(iii) Data and parameters that are monitored throughout the crediting period, such as natural gas consumption by boiler houses and CHPs, electricity consumption by boiler-houses and CHPs and heat supply

stations, electricity generation by a CHP, averaged net calorific value of natural gas, heat energy consumption by the water supply system, electricity consumption by water supply system, carbon emission factors for natural gas, for electricity consumption and generation, average outside temperature during the heating period, average inside temperature during the heating period, number of consumers of hot water supply service, heated area for every boiler house, averaged heat transfer factor of heated buildings in the base year, heated area of reconstructed buildings with application of new heat insulation, heated area of newly connected buildings with application of the new heat insulation, heat transfer factor of buildings with new heat insulation, heating period duration for every boiler house, duration of period of hot water supply service, maximum connected load to a boiler-house that is required for heating, connected load to a boiler-house that is required for hot water supply service, standard specific discharge of hot water per personal account, total volume of water supplied to consumers.

The monitoring plan describes the methods employed for data monitoring (including its frequency) and recording, such as direct measurement with gas and electricity meters; calculations with different recording frequency such as every day or once per year and electronic or paper recording method.

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

Baseline emissions

GHG emissions in the reported year for the dynamic baseline scenario consist of the following components:

$$E^{b} = E_{Hfuel}{}^{b} + E_{Hcons}{}^{b} - E_{Hgen}{}^{b} + E_{Wheat}{}^{b} + E_{Wcons}{}^{b};$$

where:

$E_{Hfuel}{}^{b}$ – emissions due to fuel consumption by the heat supply systems that would be in the base year in terms of the reported year, t CO_2e;

$E_{Hcons}{}^{b}$ – emissions due to electricity production that is consumed by the heat supply systems that would be in the base year in terms of the reported year, t CO_2e.

$E_{Hgen}{}^{b}$ – emissions due to electricity production to the state grid in amount substituted by own electricity generation in the base year in terms of the reported year, t CO_2e;

$E_{Wheat}{}^{b}$ – emissions due to heat production that is consumed by the water

supply system that would be in the base year in terms of the reported year, t CO_2e;
E_{Wcons}^{b}– emissions due to electricity production that is consumed by the water supply system that would be in the base year in terms of the reported year, t CO_2e.

Project emissions

GHG emissions in the reported year for the project scenario consist of following components:

$$E^{r} = E_{Hfuel}^{r} + E_{Hcons}^{r} - E_{Hgen}^{r} + E_{Wheat}^{r} + E_{Wcons}^{r};$$

where:
E_{Hfuel}^{r} – emissions due to fuel consumption by the heat supply systems in the reported year, t CO_2e;
E_{Hcons}^{r} – emissions due to electricity production that is consumed by the heat supply systems in the reported year, t CO_2e.
E_{Hgen}^{r} – emissions due to electricity production to the state grid in amount substituted by own electricity generation in the reported year, t CO_2e;
E_{Wheat}^{r} – emissions due to heat production that is consumed by the water supply system in the reported year, t CO_2e;
E_{Wcons}^{r} – emissions due to electricity production that is consumed by the water supply system in the reported year, t CO_2e.

Emission reductions are calculated using the equation:

$$ERs = \sum [E_{(i)}^{b} - E_{(i)}^{r}]$$

where:
$E_{(i)}^{b}$ and $E_{(i)}^{r}$ - baseline and project emissions for an (i) boiler-house (CHP or water supply system) in the reported year, t CO_2e.

The monitoring plan presents the quality assurance and control procedures for the monitoring process which are described in the section D.2 and Annex 3 of the PDD. This includes, as appropriate, information on calibration and on how records on data and/or method validity and accuracy are kept and made available on request.

The monitoring plan clearly identifies the responsibilities and the authority regarding the monitoring activities.

Data collection for fuel consumption is provided in the following way:

1. Natural gas consumption is measured by gas flow meter, installed at a boiler-house (CHP). All boiler-houses and CHPs are equipped with gas flow meters.

2. The majority of boiler-houses are equipped with automatic correctors for gas temperature and pressure. Gas consumption is registered automatically. Every day operator of a boiler house makes registration of daily gas consumption in the special paper journal "Journal of registration of boiler-house's operation parameters".

3. At the boiler-houses that are not equipped with gas volume correctors, operator of a boiler house every 2 hours registers parameters of natural gas (temperature and pressure) in the paper journal "Journal of registration of boiler-house's operation parameters". These parameters are used to bring gas consumption to standard conditions.

4. Every day operators report values of gas consumption by phone to Production-Technical Department (PTD) of heat supply enterprises, where they are storing and used for payments to gas suppliers.

5. Every month the account centers transfer data to gas suppliers.

Responsibilities for data management are presented in Table An3-5 of PDD.

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

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

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

The identified areas of concern as to Monitoring plan, project participants response and BV Certification's conclusion are described in Appendix A Table 2 (refer to CAR 09, CAR 10, CAR 11, CAR 12, CL 08).

4.8 Leakage (40-41)

No leakage is expected in proposed project activity. Dynamic baseline (based on collected monitoring data) will exclude all possible leakages.

.

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

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

The PDD provides the ex ante estimates of:

(a) Emissions for the project scenario (within the project boundary), which are 1628448 tonnes of CO_2eq for 2008-2012 and 7151880 tonnes of CO_2eq for 2013-2032;

(b) No leakage is expected.

(c) Emissions for the baseline scenario (within the project boundary), which are 3430807 tonnes of CO_2eq for 2008-2012 and 15930800 tonnes of CO_2eq for 2013-2032.

(d) Emission reductions adjusted by leakage, which are 1802359 tonnes of CO_2eq for 2008-2012 and 8778920 tonnes of CO_2eq for 2013-2032.

The estimates referred to above are given:

(a) On a annual basis;

(b) From 01/01/2008 to 31/12/2032, covering the whole crediting period;

(c) On a source-by-source/sink-by-sink basis;

(d) For each GHG gas, which are CO_2

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

The formulas used for calculating the estimates referred above are the same as those used for project monitoring and described in the section 4.7 above. All formulas are consistent throughout the PDD.

For calculating the estimates referred to above, key factors, e.g. fuel and equipment prices and availability, expected market development, etc. influencing the baseline emissions or removals and the activity level of

the project and the emissions as well as risks associated with the project were taken into account, as appropriate.

Data sources used for calculating the estimates referred to above, such as statistic data, actual historical monitored data, IPCC etc. are clearly identified, reliable and transparent.

Emission factors, such as carbon emission factor for electricity consumption, carbon emission factor for natural gas, carbon emission factor for electricity generation were selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.

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

The estimates referred to above are consistent throughout the PDD.

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

4.10 Environmental impacts (48)

The PDD lists and attaches documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party, such as Law of Ukraine «On ecological expertise», State Building Norms of Ukraine DBN A.2.2-1-2003, Water Code of Ukraine, Rules for acceptance of wastewater into the sewer of Vinnitsa, Land Code of Ukraine, Law on waste products.

The PDD provides conclusion and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party, if the analysis referred to above indicates that the environmental impacts are considered significant by the project participants or the host Party.

The identified areas of concern as to Environmental impacts, project participants response and BV Certification's conclusion are described in Appendix A Table 2 (refer to FAR 01, CAR 13, CL 09, CL 10).

4.11 Stakeholder consultation (49)

As project activity won't provide negative influence on environment and negative social effect, special public discussion was not hold.

This project was presented at the X, XXI and XXII International Conferences "Problems of Ecology and Exploitation of Energy Objects" (Crimea, 2000, 2011 and 2012), where it was comprehensively discussed with representatives of governmental and district heating organizations.

The identified areas of concern as to Stakeholder consultation, project participants response and BV Certification's conclusion are described in Appendix A Table 2 (refer to CL 11).

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

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

6 DETERMINATION OPINION

Bureau Veritas Certification has performed a determination of the "Rehabilitation of the Heat and Water Supply Systems in Vinnytsia Region" project in the Vinnytsia Region, Ukraine. The determination was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

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

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

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

The determination revealed two pending issues related to the current determination stage of the project: the issue of the written approval of the

project and the authorization of the project participant by the host Party. If the written approval and the authorization by the host Party are awarded, it is our opinion that the project as described in the Project Design Document, Version 04 meets all the relevant UNFCCC requirements for the determination stage and the relevant host Party criteria.

The review of the project design documentation (04) and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the project correctly applies and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.

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

7 REFERENCES

Category 1 Documents:
Documents provided by PJSC "Oblteplocomunenergo" and that relate directly to the GHG components of the project.

/1/ PDD "Rehabilitation of the Heat and Water Supply Systems in Vinnytsia Region", version 02 dated 15/08/2012
/2/ PDD "Rehabilitation of the Heat and Water Supply Systems in Vinnytsia Region", version 03 dated 31/08/2012
/3/ PDD "Rehabilitation of the Heat and Water Supply Systems in Vinnytsia Region", version 04 dated 21/09/2012
/4/ Guidelines for Users of the Join Implementation Project Design Document Form, version 04, JISC
/5/ Joint Implementation Project Design Document Form, version 01
/6/ Glossary of JI terms, version 03, JISC.
/7/ Guidance on Criteria for Baseline Setting and Monitoring, version 03, JISC.
/8/ Tool for the demonstration and assessment of additionality, Version 06
/9/ JISC "Clarification regarding the public availability of documents under the verification procedure under the Joint Implementation Supervisory Committee." Version 03
/10/ Joint Implementation Determination and Verification Manual. Version 01
/11/ Letter of Endorsement № 2658/23/7 on the JI project "Rehabilitation of the Heat and Water Supply Systems in Vinnytsia Region" dated 19/09/2012 issued by State Environmental Investment Agency of Ukraine

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

	ME VCC «Vinnytsiamiskteploenergo»
1.	Contract on joint activities of 07.05.2012. PSC «Oblteplocomunenergo» c. Chernihiv, ME VCC «Vinnytsiamiskteploenergo», ME «Vinnytsiaoblteploenergo», DE «Mayak», ME «Vinnytsiaoblvodokanal»
2.	Letter №2658/23/7 of 19.09.2012 State Environmental Investment Agency of Ukraine. Support project
3.	Letter №207-10-376 of 02.06.2003 Vinnytsia Regional Council. Support project
4.	Letter №4-3-6-2394 of 03.06.2003 Vinnytsia City Council. Support project
5.	Contract №405 of 29.10.1999 Institute of Engineering Ecology
6.	License №597514. Heat production (except certain kinds of business activities in the area of heat supply, in case if heat is produced by cogeneration plants and plants using alternative or renewable energy sources) (23.06.2012-22.06.2017)
7.	License №597516. Heat supply (23.06.2012-22.06.2017)

8.	License №597515. Transportation by trunk and local (distributing) heating networks, heat supply (23.06.2012-22.06.2017)
9.	License №34090. Heat production, its transportation by trunk and local (distributing) heating networks, heat supply (except certain kinds of business activities in the area of heat supply, in case if heat is produced by cogeneration plants and plants using alternative or renewable energy sources) (22.06.2007-22.06.2012)
10.	Decision №2502 of 11.10.2007 «On the beginning of the heating season 2007-2008». Vinnytsia City Council
11.	Decision №892 of 10.04.2008 «About the end of the heating season 2007-2008». Vinnytsia City Council
12.	Decision №2503 of 16.10.2008 «On the beginning of the heating season 2008-2009». Vinnytsia City Council
13.	Decision №681 of 06.04.2009 «About the end of the heating season 2008-2009». Vinnytsia City Council
14.	Decision №2298 of 08.10.2009 «On the beginning of the heating season 2009-2010». Vinnytsia City Council
15.	Decision №749 of 08.04.2010 «About the end of the heating season 2009-2010». Vinnytsia City Council
16.	Decision №2141 of 05.10.2010 «On the beginning of the heating season 2010-2011». Vinnytsia City Council
17.	Decision №931 of 14.04.2011 «About the end of the heating season 2010-2011». Vinnytsia City Council
18.	Decision №2455 of 10.10.2011 «On the beginning of the heating season 2011-2012». Vinnytsia City Council
19.	Order №323 of 20.08.2012 «On a working group and the term document storage» ME VCC «Vinnytsiamiskteploenergo»
20.	Components of tariffs for heating and hot water for the population
21.	Components of heat energy tariffs for budgetary institutions
22.	Components of heat energy tariffs for other consumers
23.	Reference of №07/1142 of 05.09.2012 class of electricity consumers
24.	Expert conclusion of state examination №1451-507/07 of 18.12.2008 working the project object «Reconstruction of CHSS on Pyrohova str., 144 in modular boiler in Vinnytsia»
25.	Expert opinion on safety №1991 B.08.05.02-40.30.0 of 12.12.2008 «Reconstruction of CHSS on Pyrohova str., 144 in modular boiler in Vinnytsia»
26.	Act of the State Commission of acceptance of the completed construction of the facility from 21.10.2008 «Reconstruction of boiler and heating networks on the Engelsa str.»
27.	Act of the State Commission of acceptance of the completed construction of the facility, dated 22.10.2008 «Reconstruction in modular boiler central heating unit on the Shchorsa str.»
28.	Permission №510136300-125 on pollutants emissions into the atmosphere by stationary sources (21.03.2011-21.03.2016)
29.	Permission №510136600-47/1 amending Permission №510136600-47 on pollutants emissions into the atmosphere by stationary sources (29.01.2009-13.04.2013)
30.	Permission №510136600-47 on pollutants emissions into the atmosphere by

	stationary sources (13.04.2008-13.04.2013)
31.	The documents, which substantiate the amount of emissions to permit the emission of pollutants into the atmosphere by stationary sources. Boiler-houses №55, Pyrohova str., 25. PE «INTER-ECO». 2008
32.	Report on the inventory of emissions of pollutants into the atmosphere by stationary sources. Boiler-houses №33, Chervonoarmiyska str., 57. PE «INTER-ECO». 2011
33.	Report on the inventory of emissions of pollutants into the atmosphere by stationary sources. Boiler-houses №55, Pyrohova str., 25. PE «INTER-ECO». 2011
34.	Report on air protection form 2-TP «air» in 2008
35.	Report on air protection form 2-TP «air» in 2009
36.	Report on air protection form 2-TP «air» in 2010
37.	Report on air protection form 2-TP «air» in 2011
38.	Act №0000000055 of 13.07.2012 transmission scrap. PE «Trade House «Evrometresurs»
39.	Act №0000000053 of 02.07.2012 transmission scrap. PE «Trade House «Evrometresurs»
40.	Reference of average daily temperatures and average pressure in January 2008
41.	Reference of average daily temperatures and average pressure in February 2008
42.	Reference of average daily temperatures and average pressure in March 2008
43.	Reference of average daily temperatures and average pressure in April 2008
44.	Reference of average daily temperatures and average pressure in October 2008
45.	Reference of average daily temperatures and average pressure in November 2008
46.	Reference of average daily temperatures and average pressure in December 2008
47.	Reference of average daily temperatures and average pressure in January 2009
48.	Reference of average daily temperatures and average pressure in February 2009
49.	Reference of average daily temperatures and average pressure in March 2009
50.	Reference of average daily temperatures and average pressure in April 2009
51.	Reference of average daily temperatures and average pressure in October 2009
52.	Reference of average daily temperatures and average pressure in November 2009
53.	Reference of average daily temperatures and average pressure in December 2009
54.	Reference of average daily temperatures and average pressure in January 2010
55.	Reference of average daily temperatures and average pressure in February 2010
56.	Reference of average daily temperatures and average pressure in March 2010
57.	Reference of average daily temperatures and average pressure in April 2010
58.	Reference of average daily temperatures and average pressure in October 2010
59.	Reference of average daily temperatures and average pressure in November 2010
60.	Reference of average daily temperatures and average pressure in December 2010
61.	Reference of average daily temperatures and average pressure in January 2011
62.	Reference of average daily temperatures and average pressure in February 2011
63.	Reference of average daily temperatures and average pressure in March 2011
64.	Reference of average daily temperatures and average pressure in April 2011
65.	Reference of average daily temperatures and average pressure in October 2011
66.	Reference of average daily temperatures and average pressure in November 2011
67.	Reference of average daily temperatures and average pressure in December 2011
68.	Register thermal loads facilities, heating in 2008

69.	Register thermal loads facilities, heating in 2009
70.	Register thermal loads facilities, heating in 2010
71.	Register thermal loads facilities, heating in 2011
72.	Output Monitoring (base 2002)
73.	Output Monitoring 2008
74.	Output Monitoring 2009
75.	Output Monitoring 2010
76.	Output Monitoring 2011
77.	Contract №06/08-1563 BO-1 of 29.09.2008 for the purchase of natural gas «Naftogaz of Ukraine»
78.	Contract №06/08-1562 TE-1 of 29.09.2008 for the purchase of natural gas «Naftogaz of Ukraine»
79.	Contract №06/09-894 BO-1 of 23.09.2009 for the purchase of natural gas «Naftogaz of Ukraine»
80.	Contract №06/09-893 TE-1 of 23.09.2009 for the purchase of natural gas «Naftogaz of Ukraine»
81.	Contract №06/09-1462 of 23.09.2009 for the purchase of natural gas «Naftogaz of Ukraine»
82.	Contract №06/10-1167 BO-1 of 14.10.2010 for the purchase of natural gas «Naftogaz of Ukraine»
83.	Contract №06/10-2214 BO-1 of 20.12.2010 for the purchase of natural gas «Naftogaz of Ukraine»
84.	Contract №06/10-1166 TE-1 of 14.10.2010 for the purchase of natural gas «Naftogaz of Ukraine»
85.	Contract №06/10-2213 TE-1 of 20.12.2010 for the purchase of natural gas «Naftogaz of Ukraine»
86.	Contract №06/10-2215 of 20.12.2010 for the purchase of natural gas «Naftogaz of Ukraine»
87.	Contract №06/11-694 BO-1 of 30.08.2011 for the purchase of natural gas «Naftogaz of Ukraine»
88.	Contract №14/2462/11 of 30.09.2011 for the purchase of natural gas «Naftogaz of Ukraine»
89.	Contract №06/11-1185 of 30.08.2011 for the purchase of natural gas «Naftogaz of Ukraine»
90.	Contract №14/2414/11 of 30.09.2011 for the purchase of natural gas «Naftogaz of Ukraine»
91.	Contract №14/2634/11 of 30.09.2011 for the purchase of natural gas «Naftogaz of Ukraine»
92.	Contract №Т-11-14в of 03.11.2011 for the purchase of natural gas PJSC «Vinnytsiagaz»
93.	Contract №Т-11-14н of 03.11.2011 for the purchase of natural gas PJSC «Vinnytsiagaz»
94.	Contract №Р-11-08 of 03.11.2011 for the purchase of natural gas PJSC «Vinnytsiagaz»
95.	Contract for the purchase of electricity №220200 of 10.01.2012 PJSC «Vinnytsiaoblenergo»

96.	Contract for the transfer of electricity № 35 of 10.01.2012 PJSC «Vinnytsiaoblenergo»
97.	Report on use of fuel and energy resources by 2002. RTM №1
98.	Report on use of fuel and energy resources by 2002. RTM №2
99.	Report on use of fuel and energy resources by 2002. RTM №3
100.	Report on use of fuel and energy resources by 2002. RTM №4
101.	Proceedings of the thermal power plant by 2002. CHP-1
102.	Report on use of fuel and energy consumption and heat generation by 2008. RTM №1
103.	Report on use of fuel and energy consumption and heat generation by 2008. RTM №2
104.	Report on use of fuel and energy consumption and heat generation by 2008. RTM №3
105.	Proceedings of the thermal power plant by 2008. CHP-1
106.	Proceedings of the thermal power plant by 2008. CHP-4
107.	Report on use of fuel and energy consumption and heat generation by 2009. RTM №1
108.	Report on use of fuel and energy consumption and heat generation by 2009. RTM №2
109.	Report on use of fuel and energy consumption and heat generation by 2009. RTM №3
110.	Report on use of fuel and energy consumption and heat generation by 2009. CHP-1, CHP-4
111.	Report on use of fuel and energy consumption and heat generation by 2010. RTM №1
112.	Report on use of fuel and energy consumption and heat generation by 2010. RTM №2
113.	Report on use of fuel and energy consumption and heat generation by 2010. RTM №3
114.	Report on use of fuel and energy consumption and heat generation by 2010. CHP-1, CHP-4
115.	Report on use of fuel and energy consumption and heat generation by 2011. RTM №1
116.	Report on use of fuel and energy consumption and heat generation by 2011. RTM №2
117.	Report on use of fuel and energy consumption and heat generation by 2011. RTM №3
118.	Report on use of fuel and energy consumption and heat generation by 2011. CHP-1, CHP-4
119.	Report on cost of electricity by 2008. RTM №1
120.	Report on cost of electricity by 2008. RTM №2
121.	Report on cost of electricity by 2008. RTM №3
122.	Report on cost of electricity by 2009. RTM №1
123.	Report on cost of electricity by 2009. RTM №2
124.	Report on cost of electricity by 2009. RTM №3
125.	Report on cost of electricity by 2010. RTM №1

126.	Report on cost of electricity by 2010. RTM №2
127.	Report on cost of electricity by 2010. RTM №3
128.	Report on cost of electricity by 2011. RTM №1
129.	Report on cost of electricity by 2011. RTM №2
130.	Report on cost of electricity by 2011. RTM №3
131.	Protocol gas quality of 26.12.2011
132.	Protocol gas quality of 28.11.2011
133.	Protocol gas quality of 21.11.2011
134.	Protocol gas quality of 14.11.2011
135.	Protocol gas quality of 07.11.2011
136.	Protocol gas quality of 31.10.2011
137.	Protocol gas quality of 24.10.2011
138.	Protocol gas quality of 17.10.2011
139.	Protocol gas quality of 18.04.2011
140.	Protocol gas quality of 28.03.2011
141.	Protocol gas quality of 21.02.2011
142.	Protocol gas quality of 17.01.2011
143.	Protocol gas quality of 27.12.2010
144.	Protocol gas quality of 29.11.2010
145.	Protocol gas quality of 25.10.2010
146.	Protocol gas quality of 12.04.2010
147.	Protocol gas quality of 29.03.2010
148.	Protocol gas quality of 23.02.2010
149.	Protocol gas quality of 01.02.2010
150.	Protocol gas quality of 29.12.2009
151.	Protocol gas quality of 30.11.2009
152.	Protocol gas quality of 26.10.2009
153.	Protocol gas quality of 14.04.2009
154.	Protocol gas quality of 30.03.2009
155.	Protocol gas quality of 23.02.2009
156.	Protocol gas quality of 26.01.2009
157.	Protocol gas quality of 22.12.2008
158.	Protocol gas quality of 24.11.2008
159.	Protocol gas quality of 27.10.2008
160.	Protocol gas quality of 14.04.2008
161.	Protocol gas quality of 24.03.2008
162.	Protocol gas quality of 25.02.2008
163.	Protocol gas quality of 28.01.2008
164.	Plan of localization and liquidation of emergencies and disasters in the gas sector ME «Vinnytsiamiskteploenergo» CHP-4
165.	Plan of localization and liquidation of emergencies and disasters in the gas sector ME «Vinnytsiamiskteploenergo» CHP-1
166.	Plan of localization and liquidation of emergencies and accidents for two boilers PTVM-30, KVGM-50 in Vinnytsia 600-richchya str., 13 ME «Vinnytsiamiskteploenergo»

167.	Regime chart boiler Vitomax 100-M148 №1 serial №728415900103, Chervonoarmiyska str., 57
168.	Regime chart boiler Vitomax 100-M148 №2 serial №728415900102, Chervonoarmiyska str., 57
169.	Regime chart boiler Vitomax 100-M148 №3 serial №728415900104, Chervonoarmiyska str., 57
170.	Regime chart boiler Kolvi 1000 №1 serial №0963, Pyrohova str., 25
171.	Regime chart boiler Kolvi 1000 №2 serial №0962, Pyrohova str., 25
172.	Regime chart boiler Kolvi 1000 №3 serial №0961, Pyrohova str., 25
173.	Plan schedule planned repair boiler house equipment on Tarnogrodskoho str. 31, 2012
174.	Plan schedule planned repair boiler house equipment on Tarnogrodskoho str. 9, 2012
175.	Plan schedule planned repair boiler house equipment on Kotsyubynskoho str., 50, 2012
176.	Plan schedule planned repair boiler house equipment on Blyuhera str., 20, 2012
177.	Plan schedule planned repair boiler house equipment on Gromova str., 1, 2012
178.	Plan schedule planned repair boiler house equipment on Kyivska str., 82, 2012
179.	Plan schedule planned repair boiler house equipment on 600-richchya str., 13, 2012
180.	Plan schedule planned repair equipment on CHP-4, 2012
181.	Plan schedule planned repair equipment on CHP-1 2012
182.	Act transmission assets of 31.10.2010. Heating module MN-120 «Bernard» №311301, boiler house Glinky str., 17a
183.	Act transmission assets of 31.10.2010. Heating module MN-120 «Bernard» №311302, boiler house Glinky str., 17a
184.	Act transmission assets of 31.10.2010. Heating module MN-120 «Bernard» №311303, boiler house Glinky str., 17a
185.	Act transmission assets of 31.10.2010. Heating module MN-120 «Bernard» №3113011, boiler house Glinky str., 17a
186.	Act transmission assets from 07.11.2008. Water heating boiler Vitoplex 300 THZ №7179852800029105, boiler house Shchorsa str., 10
187.	Act transmission assets from 07.11.2008. Water heating boiler Vitoplex 300 THZ №7179852800031108, boiler house Shchorsa str., 10
188.	Act transmission assets from 03.12.2008. Water heating boiler Vitoplex 300 THZ №009774, boiler house Engelsa str., 31
189.	Act transmission assets from 03.12.2008. Water heating boiler Vitoplex 300 THZ №009973, boiler house Engelsa str., 31
190.	Act transmission assets from 31.03.2011. Water heating boiler Vitoplex 300 THZA №7374762000037103, boiler house Pyrohova str., 144
191.	Act transmission assets from 31.03.2011. Water heating boiler Vitoplex 300 THZA №7374762000037107, boiler house Pyrohova str., 144
192.	Act of contract work by November 2008 «Reconstruction of heating on Saksaganskogo str., 11»
193.	Act of contract work in November 2009 «Overhaul of heating on Litvinenko str.»
194.	Act of contract work for August 2010 «Overhaul of heating on Station-Lebedinsky str.»

195.	Act of construction work in October 2011 «Network rehabilitation heating on Soborna str.»
196.	Map of major funds. Apparatus heating gas wall KOLVI-Termona 100 №70/07/03, boiler house Pugachova str., 3
197.	Map of major funds. Apparatus heating gas wall KOLVI-Termona 100 №66/06/03, boiler house Pugachova str., 3
198.	Map of major funds. Heating module MN-120 «Bernard» №3113011, boiler house Glinky str., 17a
199.	Map of major funds. Heating module MN-120 «Bernard» №311302, boiler house Glinky str., 17a
200.	Map of major funds. Heating module MN-120 «Bernard» №311303, boiler house Glinky str., 17a
201.	Map of major funds. Heating module MN-120 «Bernard» №311301, boiler house Glinky str., 17a
202.	Map of major funds. Water heating boiler NIISTU-5 №3113030122, boiler house Nalyvayko str., 17
203.	Map of major funds. Water heating boiler NIISTU-5 №3113030121, boiler house Nalyvayko str., 17
204.	Protocol №26 of 19.04.2012 of commission meeting on testing of knowledge on labour safety
205.	Protocol №15 of 14.03.2012 of commission meeting on testing of knowledge on labour safety
206.	Protocol №12 of 05.03.2012 of commission meeting on testing of knowledge on labour safety
207.	Protocol №38 of 22.04.2011 of commission meeting on testing of knowledge on labour safety
208.	Protocol №225 of 06.10.2011 qualification commission meeting
209.	Protocol №217 of 30.09.2011 qualification commission meeting
210.	Protocol №209 of 24.03.2011 qualification commission meeting
211.	Protocol №7 of 05.03.2010 of commission meeting on testing of knowledge on labour safety
212.	Protocol №15 of 09.04.2010 of commission meeting on testing of knowledge on labour safety
213.	Protocol №219 of 01.10.2010 qualification commission meeting
214.	Protocol №220 of 01.10.2010 qualification commission meeting
215.	Protocol №219 of 25.09.2009 qualification commission meeting
216.	Protocol №206 of 08.04.2009 qualification commission meeting
217.	Protocol №203 of 25.03.2009 qualification commission meeting
218.	Protocol №236 of 06.10.2008 qualification commission meeting
219.	Protocol №209 of 09.04.2008 qualification commission meeting
220.	Protocol №206 of 25.03.2008 qualification commission meeting
221.	Passport. Gas meter GMS-G 16 №057171, Pugachova str., 3
222.	Passport. Gas meter GMS 100 RGK-1/20-Ex №191, Nalyvayko str., 17
223.	Passport. Gas meter GMS-G 40-40 №104367, Glinky str., 17a
224.	Passport. Gas meter RGK-40-Ex №10252, Chervonoarmiyska str., 16a

225.	Passport. Gas meter RGK-40-Ex №9329, Kotsyubynskoho str., 50
226.	Passport. Gas meter LGK-80-160-1.6-01-Ex №6388, Pyrohova str., 25
227.	Passport. Gas meter GMS-G 160-80 №122192, Pyrohova str., 144
228.	Passport. Gas meter GMS-G 40-40 №122292, Chervonyh Partyzan str., 21
229.	Passport. Gas meter TZ/FLUXI 100/GMS-G 400 №27016, K. Marksa str., 18a
230.	Passport. Gas meter TZ/FLUXI 100/GMS-G 400 №27018, K. Marksa str., 18a
231.	Passport. Gas meter G400 LGK-150-1/20-Ex №10297, Chervonoarmiyska str., 57
232.	Passport. Gas meter G400 LGK-150-1/20-Ex №10298, Chervonoarmiyska str., 57
233.	Passport. Gas meter G400 LGK-150-1/20-Ex №10299, Chervonoarmiyska str., 57
234.	Passport. Gas meter G1000 LGK-200-1/20-1,6-1-Ex №10305, Chervonoarmiyska str., 57
235.	Passport. Electricity meter ET 3B5E8ULRT+ №37374, Chervonoarmiyska str., 57
236.	Passport. Electricity meter ET 3B5E8ULRT+ №28162, Bazhenova str., 15
237.	Passport. Electricity meter ET 3B5E8ULRT+ №28164, Bazhenova str., 15
238.	Passport. Electricity meter ET 2A5E7KLRT №15500, CHP-1
239.	Passport. Electricity meter ET 2A5E7KLRT №15502, CHP-1
240.	Passport. Electricity meter EMS 134.10.1 №397893, Pyrohova str., 25
241.	Passport. Electricity meter LZQM 321.02.534 №517642, P. Komuny str., 18
242.	Passport. Electricity meter LZQM 321.02.534 №517639, P. Komuny str., 18
243.	Passport. Electricity meter LZQM 321.02.534 №517655, Zbyshko str., 5
244.	Passport. Electricity meter LZQM 321.02.534 №517658, Pyrohova str., 107
245.	Certificate №00396 Bondarev A.T. - operator of boiler house, Pyrohova str., 25
246.	Passport. Fixed steel-water boiler KOLVI 1000 №0963.288, boiler house Pyrohova str., 25
247.	Passport. Fixed steel-water boiler KOLVI 1000 №0965.291, boiler house Pyrohova str., 25
248.	Passport. Fixed steel-water boiler KOLVI 1000 №0961.285, boiler house Pyrohova str., 25
249.	Passport. Boiler Vitomax 100 M148 №728415900102, boiler house Chervonoarmiyska str., 57
250.	Passport. Boiler Vitomax 100 M148 №728415900103, boiler house Chervonoarmiyska str., 57
251.	Passport. Boiler Vitomax 100 M148 №728415900104, boiler house Chervonoarmiyska str., 57
252.	Passport. Boiler KOLVI-Termona 100 №70/07/03, boiler house Pugachova str., 3
253.	Passport. Boiler KOLVI-Termona 100 №66/06/03, boiler house Pugachova str., 3
254.	Passport. Heating module MN-120 «Bernard» №3113011, boiler house Glinky str., 17a
255.	Passport. Heating module MN-120 «Bernard» №311302, boiler house Glinky str., 17a
256.	Passport. Heating module MN-120 «Bernard» №311303, boiler house Glinky str., 17a
257.	Passport. Heating module MN-120 «Bernard» №311301, boiler house Glinky str., 17a
258.	Passport. Boiler NIISTU-5 №3113030122, boiler house Nalyvayko str., 17

259.	Passport. Boiler NIISTU-5 №3113030121, boiler house Nalyvayko str., 17
260.	Passport. Boiler Vitoplex 300 TXZ №7179852800029105, boiler house Shchorsa str., 10
261.	Passport. Boiler Vitoplex 300 TXZ №7179852800031108, boiler house Shchorsa str., 10
262.	Passport. Boiler Vitoplex 300 TXZ №009774, boiler house Engelsa str., 31
263.	Passport. Boiler Vitoplex 300 TXZ №009773, boiler house Engelsa str., 31
264.	Passport. Boiler Vitoplex 300 TXZA №7374762000037103, boiler house Pyrohova str., 144
265.	Passport. Boiler Vitoplex 300 TXZA №7374762000037107, boiler house Pyrohova str., 144
266.	Passport. Boiler Vitoplex PV1 №7192486900052100, boiler house Chervonoarmiyska str., 1
267.	Passport. Boiler Vitoplex PV1 №7192486900051103, boiler house Chervonoarmiyska str., 1
268.	Production instruction for operators of boiler with the safe operation and maintenance of hot water boilers Vitomax 100 boiler house Chervonoarmiyska str., 57
269.	Register of the use of gas, RTM-2, boiler house Pyrohova str., 25
270.	Register of electricity consumption RTM-2, boiler house Pyrohova str., 25
271.	Register of the use of gas, RTM-2, boiler house Chervonoarmiyska str., 57
272.	Register of electricity consumption RTM-2, boiler house Chervonoarmiyska str., 57
273.	Photo. Fixed steel-water boiler KOLVI 1000 №0963.288, boiler house Pyrohova str., 25
274.	Photo. Fixed steel-water boiler KOLVI 1000 №0965.291, boiler house Pyrohova str., 25
275.	Photo. Fixed steel-water boiler KOLVI 1000 №0961.285, boiler house Pyrohova str., 25
276.	Photo. Passport. Gas meter LGK-80-160-1.6-01-Ex №6388, Pyrohova str., 25
277.	Photo. Passport. Boiler Vitomax 100 M148 №728415900102, boiler house Chervonoarmiyska str., 57
278.	Photo. Passport. Boiler Vitomax 100 M148 №728415900103, boiler house Chervonoarmiyska str., 57
279.	Photo. Passport. Boiler Vitomax 100 M148 №728415900104, boiler house Chervonoarmiyska str., 57
280.	Photo. Passport. Gas meter G400 LGK-150-1/20-Ex №10297, Chervonoarmiyska str., 57
281.	Photo. Passport. Gas meter G400 LGK-150-1/20-Ex №10298, Chervonoarmiyska str., 57
282.	Photo. Passport. Gas meter G400 LGK-150-1/20-Ex №10299, Chervonoarmiyska str., 57
283.	Photo. Passport. Gas meter G1000 LGK-200-1/20-1.6-1-Ex №10305, Chervonoarmiyska str., 57
	ME «Vinnytsiaoblteploenergo»
284.	License №597481. Heat production (except certain kinds of business activities in the area of heat supply, in case if heat is produced by cogeneration plants and plants

	using alternative or renewable energy sources) (13.06.2012-12.06.2017)
285.	License №597483. Heat supply (13.06.2012-12.06.2017)
286.	License №597482. Transportation by trunk and local (distributing) heating networks, heat supply (13.06.2012-12.06.2017)
287.	License №345076. Heat production, its transportation by trunk and local (distributing) heating networks, heat supply (except certain kinds of business activities in the area of heat supply, in case if heat is produced by cogeneration plants and plants using alternative or renewable energy sources) (12.06.2007-12.06.2012)
288.	Order №121 of 07.06.2012 «On a working group and the term document storage» ME «Vinnytsiaoblteploenergo»
289.	Permission №510136600-55 on pollutants emissions into the atmosphere by stationary sources (01.08.2008-01.08.2013) boiler house Medvedeva str., 1
290.	Report on air protection form 2-TP «air» in 2008
291.	Report on air protection form 2-TP «air» in 2009
292.	Report on air protection form 2-TP «air» in 2010
293.	Report on air protection form 2-TP «air» in 2011
294.	The positive conclusion of the public examination №183F/08 of 25.06.2010 to project «Reconstruction of the boiler house on Nahirna str., 13 in Vinnitsa»
295.	Expert opinion on safety №550 B.10.05.02-40.30.0 of 25.06.2010 «Reconstruction of the boiler house on Nahirna str., 13 in Vinnitsa»
296.	The positive conclusion of the public examination №1385-341/07 of 03.12.2007 to project «Reconstruction of the boiler house and heating networks on Sabarivske shose, 2 in Vinnitsa»
297.	Expert opinion on safety №533 B.10.05.02-45.33.3 of 25.06.2010 «Reconstruction of the boiler house on Barske shose, 5th km in Berezino Vinnytsia region»
298.	Conclusion on construction project №476 of 06.11.2008 «Reconstruction of the boiler house on Barske shose, 5th km in Berezino Vinnytsia region»
299.	A working project. Impacts on the environment. «Reconstruction of the boiler house on Barske shose, 5th km in Berezino Vinnytsia region». LTD «Kolvi-Servis». 2008
300.	A working project. Impacts on the environment. «Reconstruction of the boiler house and heating networks on Sabarivske shose, 2 / Vyshneva str., 24/13, in Vinnitsa». LTD «Kolvi-Servis». 2008
301.	Contract №20/12/v of 26.05.2011 to transfer waste. LTD «Dobrobut Eco-Ukraine»
302.	Contract №1896649 of 20.03.2012 to transfer scrap. PJSC «Podillyavtormetal»
303.	Act №01-0050 of 19.06.2012 taking ferrous metals
304.	Act of contract work by August 2009 «Replacement of heating boiler house on Sonyachna str., 3 to Pyrohova str., 161»
305.	Act of contract work by December 2009 «Replacement of heating boiler house on P.Tychyny str., 70 in Pohrebysche »
306.	Act of contract work by December 2009 «Replacement of heating boiler house on Petrovskoho str., 12 in Zhmerynka»
307.	Act of construction work in October 2011 « Replacement of heating boiler house on Barske shose, 5th km»
308.	Act of construction work in October 2011 « Replacement of heating boiler house on Pyrohova str., 46»

309.	Contract №06/10-2255 BO-1 of 29.12.2010 for the purchase of natural gas «Naftogaz of Ukraine»
310.	Contract №06/10-991 BO-1 of 14.10.2010 for the purchase of natural gas «Naftogaz of Ukraine»
311.	Contract №06/09-1346 BO-1 of 23.09.2009 for the purchase of natural gas «Naftogaz of Ukraine»
312.	Contract №06/08-1689 BO-1 of 29.09.2008 for the purchase of natural gas «Naftogaz of Ukraine»
313.	Contract №06/10-990 TE-1 of 14.10.2010 for the purchase of natural gas «Naftogaz of Ukraine»
314.	Contract №06/10-2254 TE-1 of 29.12.2010 for the purchase of natural gas «Naftogaz of Ukraine»
315.	Contract №06/09-1345 TE-1 of 23.09.2009 for the purchase of natural gas «Naftogaz of Ukraine»
316.	Contract №06/09-1688 TE-1 of 29.09.2008 for the purchase of natural gas «Naftogaz of Ukraine»
317.	Contract №14/2534/11 of 30.09.2011 for the purchase of natural gas «Naftogaz of Ukraine»
318.	Contract №590/12 of 22.12.2011 for the purchase of natural gas PJSC «Vinnytsiagaz»
319.	Contract №589/12 of 22.12.2011 for the purchase of natural gas PJSC «Vinnytsiagaz»
320.	Output Monitoring (base 2002)
321.	Output Monitoring 2008
322.	Output Monitoring 2009
323.	Output Monitoring 2010
324.	Output Monitoring 2011
325.	Report fuels and heat 2008
326.	Report fuels and heat 2009
327.	Report fuels and heat 2010
328.	Report fuels and heat 2011
329.	Report on the use of electricity 2008
330.	Report on the use of electricity 2009
331.	Report on the use of electricity 2010
332.	Report on the use of electricity 2011
333.	Protocol №10-R of 22.03.2012 of commission meeting on testing of knowledge on labour safety
334.	Protocol №11-R of 29.03.2012 of commission meeting on testing of knowledge on labour safety
335.	Protocol №210 of 24.03.2011 qualification commission meeting
336.	Protocol №211 of 31.03.2011 qualification commission meeting
337.	Protocol №203 of 19.03.2010 qualification commission meeting
338.	Protocol №207 of 20.03.2009 qualification commission meeting
339.	Protocol №208 of 27.03.2009 qualification commission meeting
340.	Protocol №210 of 20.03.2008 qualification commission meeting

341.	Protocol №211 of 27.03.2008 qualification commission meeting
342.	Register registrations, applications, complaints and personal reception of citizens
343.	Passport. Gas Corrector «Universal-02» №5668, Medvedeva str., 1
344.	Passport. Electricity meter EPQS 122.08.04SS №338862, Medvedeva str., 1
345.	Passport. Electricity meter EPQS 122.08.04SS №338864, Medvedeva str., 1
346.	Certificate of calibration of measuring instruments №230/1965. Automated commercial electricity metering (AMR) №05.01.0135-08 based multifunction electronic meters type EPQS 122.08.04SS № 338864, 338862. Applicable to 20.10.2013
347.	Passport. Boiler KVG-7,56 №574, Medvedeva str., 1
348.	Passport. Boiler KVG-7,56 №573, Medvedeva str., 1
349.	Passport. Boiler KVG-6,5 №219, Medvedeva str., 1
350.	Register of data of the work the boiler house, Medvedeva str., 1
351.	Register of the use of gas, boiler house Medvedeva str., 1
352.	Register of electricity consumption, boiler house Medvedeva str., 1
353.	Photo. Boiler KVG-7,56 №574, Medvedeva str., 1
354.	Photo. Boiler KVG-7,56 №573, Medvedeva str., 1
355.	Photo. Boiler KVG-6,5 №219, Medvedeva str., 1
356.	Photo. Gas Corrector «Universal-02» №5668, Medvedeva str., 1
	DE «Mayak»
357.	License №597466. Heat production (except certain kinds of business activities in the area of heat supply, in case if heat is produced by cogeneration plants and plants using alternative or renewable energy sources) (13.06.2012-12.06.2017)
358.	License №597468. Heat supply (13.06.2012-12.06.2017)
359.	License №597467. Transportation by trunk and local (distributing) heating networks, heat supply (13.06.2012-12.06.2017)
360.	License №345071. Heat production, its transportation by trunk and local (distributing) heating networks, heat supply (except certain kinds of business activities in the area of heat supply, in case if heat is produced by cogeneration plants and plants using alternative or renewable energy sources) (12.06.2007-12.06.2012)
361.	Order №30 of 23.07.2012 «On a working group and the term document storage» DE «Mayak»
362.	Contract - Lease №2-10 of 01.03.2010 LTD «Teplocomunenergo Mayak Ltd» with DE «Teplocomunenergo Mayak»
363.	Permission №510136600-8 on pollutants emissions into the atmosphere by stationary sources (20.03.2008-20.03.2013)
364.	The documents, which substantiate the amount of emissions to permit the emission of pollutants into the atmosphere by stationary sources. DE «Mayak». MVP «EOL-LTD». 2008
365.	Register of stationary pollution sources and their characteristics. (POD-1)
366.	Report on air protection form 2-TP «air» in 2008
367.	Report on air protection form 2-TP «air» in 2009
368.	Report on air protection form 2-TP «air» in 2010
369.	Report on air protection form 2-TP «air» in 2011

370.	Contract №T-11-15 of 30.09.2011 for the supply of natural gas at regulated tariffs PJSC «Vinnytsiagaz»
371.	Contract №14/2315/11 of 30.09.2011 on the sale of natural gas «Naftogaz of Ukraine»
372.	Contract №06/11-698 BO-1 of 30.08.2011 for the purchase of natural gas «Naftogaz of Ukraine»
373.	Contract №06/10-2252 TE-1 of 20.12.2010 for the purchase of natural gas «Naftogaz of Ukraine»
374.	Contract №06/10-973 TE-1 of 06.10.2010 for the purchase of natural gas «Naftogaz of Ukraine»
375.	Contract №06/10-974 BO-1 of 06.10.2010 for the purchase of natural gas «Naftogaz of Ukraine»
376.	Contract №06/10-2253 BO-1 of 20.12.2010 for the purchase of natural gas «Naftogaz of Ukraine»
377.	Contract №06/09-1433 TE-1 of 23.09.2009 for the purchase of natural gas «Naftogaz of Ukraine»
378.	Contract №06/09-1434 BO-1 of 23.09.2009 for the purchase of natural gas «Naftogaz of Ukraine»
379.	Contract №06/08-1611 TE-1 of 29.09.2008 for the purchase of natural gas «Naftogaz of Ukraine»
380.	Contract №06/08-1612 BO-1 of 29.09.2008 for the purchase of natural gas «Naftogaz of Ukraine»
381.	Contract on procurement of goods by public funds (electricity) №220100 of 30.12.2011 PJSC «Vinnytsiaoblenergo»
382.	Output Monitoring 2008-2011
383.	Report on the use of fuel, heat energy and electricity by 2011 (Form №11-MTP)
384.	Report on the use of fuel, heat energy and electricity by 2010 (Form №11-MTP)
385.	Report on the use of fuel, heat energy and electricity by 2009 (Form №11-MTP)
386.	Report on the use of fuel, heat energy and electricity by 2008 (Form №11-MTP)
387.	Report on balances and the use of energy materials and products of petroleum by 2011 (form №4-MTP)
388.	Report on balances and the use of energy materials and products of petroleum by 2010 (form №4-MTP)
389.	Report on balances and the use of energy materials and products of petroleum by 2009 (form №4-MTP)
390.	Report on balances and the use of energy materials and products of petroleum by 2008 (form №4-MTP)
391.	Protocol №4 of 15.01.2012 of commission meeting on testing of knowledge on labour safety
392.	Protocol №5 of 24.01.2012 of commission meeting on testing of knowledge on labour safety
393.	Protocol №190 of 13.10.2011 qualification commission meeting
394.	Protocol №144/1 of 25.10.2010 qualification commission meeting
395.	Schedule repair heating systems, CHSS, boiler house in 2008
396.	Schedule repair heating systems, CHSS, boiler house in 2009
397.	Schedule repair heating systems, CHSS, boiler house in 2010

398.	Schedule repair heating systems, CHSS, boiler house in 2011
399.	Passport. Gas meter LGK-200-1/20-1,6-1-Ex №10819
400.	Passport. Gas meter LGK-200-1/20-1,6-1-Ex №10812
401.	Passport. Gas Corrector «Universal-02» №1163
402.	Passport. Electricity meter «Energia-9» №28438
403.	Passport. Electricity meter«Energia-9» №28385
404.	Passport. Boiler PTVM-30M №776
405.	Passport. Boiler PTVM-30M №1119
406.	Passport. Boiler PTVM-30M №2826
407.	Passport. Boiler PTVM-30M №838
408.	Register of the use of gas
409.	Photo. Gas meter LGK-200-1/20-1,6-1-Ex №10819
410.	Photo. Gas meter LGK-200-1/20-1,6-1-Ex №10812
411.	Photo. Boiler PTVM-30M №776
412.	Photo. Boiler PTVM-30M №1119
413.	Photo. Boiler PTVM-30M №2826
414.	Photo. Boiler PTVM-30M №838
	ME «Vinnytsiaoblvodokanal»
415.	Order №272 of 30.08.2012 «On a working group and the term document storage»
416.	Special water use permit №3297 of 22.11.2007
417.	Special water use permit №4501 of 16.11.2010
418.	Special water use permit №5142 of 11.01.2012
419.	Contract for the supply of electricity №1216/63 of 21.03.2010 JSC «Vinnytsiaoblenergo»
420.	Reference. Electricity consumption in 2008
421.	Reference. Electricity consumption in 2009
422.	Reference. Electricity consumption in 2010
423.	Reference. Electricity consumption in 2011
424.	Report on water supply by 2008 (form №1 - plumbing)
425.	Report on water supply by 2009 (form №1 - plumbing)
426.	Report on water supply by 2010 (form №1 - plumbing)
427.	Report on water supply by 2011 (form №1 - plumbing)
428.	Reference. Heat consumption 2008-2011
429.	Output Monitoring 2002, 2008-2011
430.	Act of installing equipment of 17.09.2010. Pump set P-50-200 NB. WPS of III elevation, K.Marksa str., 2
431.	Act of installing equipment of 09.09.2009. Pump set MS-30/50. SPS of psychiatric hospital, Barske shose, 6-km, Berezino
432.	Act of installing equipment of 06.12.2007. Pump set FA 30.78 D. SPS №3A, Pyrohova str.
433.	Act of installing equipment of 15.12.2006. Pump set FA 30.78 D. SPS №3A, Pyrohova str.
434.	Act of installing equipment of 08.11.2006. Pump set FA 30.78 D. SPS №1A, H.Uspenskoho str.
435.	Act of installing equipment of 08.12.2005. Pump set FA 30.78 D. SPS №1A,

	H.Uspenskoho str.
436.	Act of installing equipment of 17.08.2004. Pump set TS 80 H 200/190 Wilo. SPS №4, Nahirna str.
437.	Act of installing equipment of 10.06.2003. Pump set D 3200-33-2. WPS of III elevation, «Vyshenka»
438.	Passport. Electricity meter ACE 6000 №55002653
439.	Passport. Electricity meter ACE 6000 №55002663
440.	Passport. Electricity meter ACE 6000 №55002678
441.	Passport. Electricity meter ACE 6000 №55002688
442.	Passport. Water metering complexes IRKA №2917
443.	Passport. Water metering complexes IRKA №2918
444.	Passport. Water metering complexes IRKA №2922
445.	Passport. Water metering complexes IRKA №3008

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

1. Oleh Pizniak - General Director of ME VCC «Vinnytsiamiskteploenergo»
2. Volodymyr Shikera - Deputy General Director of ME VCC «Vinnytsia-miskteploenergo»
3. Yevgen Petrovskiy - Head of the Department of development and energy management of ME VCC «Vinnytsiamiskteploenergo»
4. Sergiy Sokolovskiy - Deputy Head of the Department of Development and Energy Management of ME VCC «Vinnytsiamiskteploenergo»
5. Andriy Laskavchuk - Deputy Head of the Department of Energy Production of ME VCC «Vinnytsiamiskteploenergo»
6. Igor Kilchitskiy – Master of ME VCC «Vinnytsiamiskteploenergo»
7. Volodymyr Rozhkivskiy - Mechanic repairman of ME VCC «Vinnytsia-miskteploenergo»
8. Anatoliy Bondarev - Boiler operator of ME VCC «Vinnytsia-miskteploenergo»
9. Valeriy Dovbaniuk - Technical Director of ME «Vinnytsia-oblteploenergo»
10. Vitaliy Prokopchuk - Head of Energy resources department of ME «Vinnytsiaoblteploenergo»
11. Mykola Svystun - Head of production and operating service of ME «Vinnytsiaoblteploenergo»
12. Anatoliy Topic - Boiler operator of ME «Vinnytsiaoblteploenergo»
13. Oleh Fedorov – Director of DE «Mayak»
14. Nina Shestopolyuk - Engineer of DE “Mayak”
15. Oleh Shvedov - Chief Engineer of ME «Vinnytsiaoblvodokanal»
16. Yuriy Abashkin - Engineer of PTD of ME «Vinnytsiaoblvodokanal»
17. Olexandr Sigal - Director of Institute of Engineering Ecology
18. Korinchuk Kateryna - Scientific researcher of Institute of Engineering Ecology

APPENDIX A: DETERMINATION PROTOCOL
BUREAU VERITAS CERTIFICATION HOLDING SAS

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

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
General description of the project				
Title of the project				
-	Is the title of the project presented?	The title of the project is: "Rehabilitation of the Heat and Water Supply Systems in Vinnytsia Region"	OK	OK
-	Is the sectoral scope to which the project pertains presented?	Sectoral scopes: 1. Energy industries (renewable - / non-renewable sources); 2. Energy distribution; 3. Energy demand.	OK	OK
-	Is the current version number of the document presented?	The current version number of the document is presented. See section A.1.	OK	OK
-	Is the date when the document was completed presented?	The date of completeness of the current version of the project design document is indicated in the PDD section A.1.	OK	OK
Description of the project				
-	Is the purpose of the project included with a concise, summarizing explanation (max. 1-2 pages) of the:	a) Situation existing prior to the starting date of the project: The common practice for the district heating and water supplying enterprises in Ukraine including enterprises that	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	a) Situation existing prior to the starting date of the project; b) Baseline scenario; and c) Project scenario (expected outcome, including a technical description)?	implement the project is to fulfil annual minimal repairing of the heat and water supply system to keep them working. In fact, mainly repairing of network's parts and boilers which might cause accidents are commonly executed. b) Baseline scenario: For Baseline scenario, the economically feasible and realistic scenario with very slow rehabilitation activities was chosen. Tariffs for heat and water do not include the resources for prospective rehabilitation of the heat and water supply systems, only the resources for probable necessary repairing after possible accidents. Minimal annual repairing doesn't lead to reduction of baseline emissions, because along with degradation of the whole systems with efficiency droop at other objects, the overall actual emissions of Supplier would stay at approximately the same level. This scenario is not environmentally favorable for the near future, since GHGs emissions of Supplier will continue to be kept at the same level or even higher, but economically such scenario is attractive. c) Project scenario The project employs the increase of fuel and energy resources (FER) consumption efficiency to reduce greenhouse gas emissions relative to current practice. The following activities will ensure fuel and energy resources saving: - liquidation of low efficient boiler-houses with: ✓ switching load to the high efficient boiler-houses and/or CHP plants; ✓ construction of modular mini-boiler-houses;		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		- replacement of obsolete boilers with high efficient ones, including switching of boiler-houses to renewable resources (wood); - rehabilitation of boilers with replacement and preventive maintenance measures for boilers burners, heated surfaces, etc.: - optimization of heat load allocation and operational mode of equipment; - optimization of heat supply network organization and network rehabilitation; - consecutive switching of heat supply networks to preliminary insulated pipes; - optimization of water load allocation; - replacement of pipes of water supply and sewage networks; - technical re-equipment of heat supply stations with highly effective heat exchangers and implementation of IHSS; - implementation of heat recovery equipment; - implementation of technology for carbon dioxide binding from flue gases; - installation of frequency controllers at electric drives of pumps, blow fans and smoke exhausters; - replacement / rehabilitation of pumps; - installation of heat pump at SPS-3A for heating the station buildings; - improvement of the feeding water quality by optimization of operational mode of water preparation system; - implementation of control and monitoring systems.		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
-	Is the history of the project (incl. its JI component) briefly summarized?	The history of the project (incl. its JI component) is briefly summarized.	OK	OK
Project participants				
-	Are project participants and Party(ies) involved in the project listed?	Project participant and parties involved are listed in the Table in section A.3. of the PDD. CAR 01. In section A.2 mentioned that the Agreement dated 07/05/2012 on Joint Activity for realization the JI project on GHG emission reduction was signed OJSC "Oblteplocomunenergo", whereas in the text of the Agreement - PJSC "Oblteplocomunenergo." Please make the appropriate changes.	CAR 01	OK
-	Is the data of the project participants presented in tabular format?	The data of the project participants are presented in due tabular format.	OK	OK
-	Is contact information provided in Annex 1 of the PDD?	Contact information is provided in Annex 1 of the PDD. CAR 02. Please fill in Annex 1 information regarding website address Public Joint Stock Company "Oblteplocomunenergo". CL 01. Please clarify why the in PDD are specified as Project participants OÜ "BIOTEHNOLOOGIA" Netherlands while in Annex 1 are OÜ "BIOTEHNOLOOGIA" Estonia.	CAR 02 CL 01	OK OK
-	Is it indicated, if it is the case, if the Party involved is a host Party?	Ukraine is indicated as Host Party.	OK	OK
Technical description of the project				
Location of the project				
-	Host Party(ies)	Ukraine	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
-	Region/State/Province etc.	Vinnytsia region	OK	OK
-	City/Town/Community etc.	The Project includes inhabited localities in 10 districts of the Vinnytsia region. Vinnytsia district: Vinnytsia, Stryzhavka, Voronovytsia, Prybuzke; Gaysyn district: Gaysyn, Kysliak; Zhmerynka district: Zhmerynka; Koziatyn district: Samhorodok, Kashperivka; Lypovets district: Lypovets; Nemyriv district: Bratslav; Pohrebysche district: Pohrebysche; Tyvriv district: Tyvriv; Tomashpil district: Antopil; Trostyanets district: Obodivka.	OK	OK
-	Detail of the physical location, including information allowing the unique identification of the project. (This section should not exceed one page)	Location of the office: Vinnytsia City, 49°14′14″ N, 28°28′02″ E.	OK	OK
Technologies to be employed, or measures, operations or actions to be implemented by the project				
-	Are the technology(ies) to be employed, or measures, operations or actions to be implemented by the project, including all relevant technical data and the implementation schedule described?	PDD Section A.4.2 provides some relevant technical data of main equipment installed and actions to be implemented by the project as well as the project implementation schedule. CAR 03. Links on page 9 for information on technical specifications of pumps "Wilo", leading to a deleted page. Please make the appropriate changes. CL 02. Please provide information which would confirm that the of organizational and operational measures can save energy resources, as stated in the PDD to 30%.	CAR 03 CL 02 CL 03 CL 04 CL 05 CL 06	OK OK OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		CL 03. Please clarify why the Excel spreadsheet Appendix 1 boilerhouse on the Pugachova str., 3 boilers are Kolvi -50 while in the passport Kolvi -100? CL 04. Please clarify why the Excel spreadsheet Appendix 6 are not specified pumping units MC-30/50 in WPS of II elevation, II psychiatric hospital, Barske shose, 6-km, Berezino according the Act of equipment installation dated 09/09/2009? CL 05. Please clarify why the Excel spreadsheet Appendix 6 are not specified pumping units FA 30.78D in SPS №3A on Pyrohova str. according the Act equipment installation dated 06/12/2007 and dated 15/12/2006? CL 06. Please clarify why the Excel spreadsheet Appendix 6 are specified other pumping units in the SPS No.4 on Nagirna str. while the Act installing equipment dated 17/08/2004 are TS 80 H 200/190 Wilo?		
Brief explanation of how the anthropogenic emissions of greenhouse gases by sources are to be reduced by the proposed JI project, including why the emission reductions would not occur in the absence of the proposed project, taking into account national and/or sectoral policies and circumstances				
-	Is it stated how anthropogenic GHG emission reductions are to be achieved? (This section should not exceed one page)	The project activities including replacement, modernization and rehabilitation of equipment of boiler-houses, CHPs, water and sewage pumping stations and heat and water distribution network will increase energy efficiency of the heat and water supply systems in Vinnytsia region, thus enabling them to produce the same amount of heat energy and supply the same amount of water to customers with less fuel and energy resources consumption. Reduced fuel and	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		energy resources consumption will lead to reduction of GHG emissions.		
-	Is it provided the estimation of emission reductions over the crediting period?	The estimation of emission reductions over the crediting period is provided.	OK	OK
-	Is it provided the estimated annual reduction for the chosen credit period in tCO2e?	The estimated annual reduction for the chosen credit period is provided in tCO_2e.	OK	OK
-	Are the data from questions above presented in tabular format?	The data from questions above are presented in tabular format. Refer to Tables in section A.4.3.1.	OK	OK
Estimated amount of emission reductions over the crediting period				
-	Is the length of the crediting period Indicated?	The length of crediting period is indicated in the PDD section A.4.3.1.	OK	OK
-	Are estimates of total as well as annual and average annual emission reductions in tonnes of CO2 equivalent provided?	Total as well as annual and average annual emission reductions in tonnes of CO_2 equivalent are provided in accordance with the calculated values in the spreadsheet provided to the verifier.	OK	OK
Project approvals by Parties				
19	Have the DFPs of all Parties listed as “Parties involved” in the PDD provided written project approvals?	CAR 04. The project has no letters of approval of the Parties involved.	CAR 04	Pending
19	Does the PDD identify at least the host Party as a “Party involved”?	Host Party involved is the Ukraine.	OK	OK
19	Has the DFP of the host Party issued a written project approval?	According to the adopted procedure, the LoAs by Parties involved will be issued after the project determination.	Pending	Pending
20	Are all the written project approvals by Parties involved unconditional?	According to the adopted procedure, the LoAs by Parties involved will be issued after the project determination.	Pending	Pending

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
Authorization of project participants by Parties involved				
21	Is each of the legal entities listed as project participants in the PDD authorized by a Party involved, which is also listed in the PDD, through: − A written project approval by a Party involved, explicitly indicating the name of the legal entity? or − Any other form of project participant authorization in writing, explicitly indicating the name of the legal entity?	Party involved 1: Ukraine (host Party), legal entities are PJSC "Oblteplocomunenergo" Party involved 2: Estonia, legal entity OÜ "Biotehnoloogia"	OK	OK
Baseline setting				
22	Does the PDD explicitly indicate which of the following approaches is used for identifying the baseline? − JI specific approach − Approved CDM methodology approach	The baseline scenario was chosen based on project-specific approach in accordance with paragraph 9(a) of the JISC Guidance on Criteria for Baseline Setting and Monitoring". The specialists of the European Institute for safety, security, insurance and environmental technics "SVT e.V." (Germany) and of the Institute of Engineering Ecology (Ukraine) have developed the project specific approach, which takes into account all activities involved in and the peculiarities of the JI projects on rehabilitation of the district heating systems in Ukraine.	OK	OK
JI specific approach only				
23	Does the PDD provide a detailed theoretical description in a complete and transparent manner?	The theoretical description is provided in the PDD.	OK	OK
23	Does the PDD provide justification that the baseline is established: (a) By listing and describing plausible future scenarios on the basis of conservative	The PDD provides justification that the baseline is established by listing and describing plausible future scenarios on the basis of conservative assumption and selecting the most plausible one.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	assumptions and selecting the most plausible one? (b) Taking into account relevant national and/or sectoral policies and circumstance? − Are key factors that affect a baseline taken into account? (c) In a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, date sources and key factors? (d) Taking into account of uncertainties and using conservative assumptions? (e) In such a way that ERUs cannot be earned for decreases in activity levels outside the project or due to force majeure? (f) By drawing on the list of standard variables contained in appendix B to "Guidance on criteria for baseline setting and monitoring", as appropriate?			
24	If selected elements or combinations of approved CDM methodologies or methodological tools for baseline setting are used, are the selected elements or combinations together with the elements supplementary developed by the project participants in line with 23 above?	N/A	N/A	N/A
25	If a multi-project emission factor is used, does the PDD provide appropriate justification?	N/A	N/A	N/A
Approved CDM methodology approach only				
26 (a)	Does the PDD provide the title, reference number and version of the approved CDM	N/A	N/A	N/A

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	methodology used?			
26 (a)	Is the approved CDM methodology the most recent valid version when the PDD is submitted for publication? If not, is the methodology still within the grace period (was the methodology revised to a newer version in the past two months)?	N/A	N/A	N/A
26 (b)	Does the PDD provide a description of why the approved CDM methodology is applicable to the project?	N/A	N/A	N/A
26 (c)	Are all explanations, descriptions and analyses pertaining to the baseline in the PDD made in accordance with the referenced approved CDM methodology?	N/A	N/A	N/A
26 (d)	Is the baseline identified appropriately as a result?	N/A	N/A	N/A
Additionality				
JI specific approach only				
28	Does the PDD indicate which of the following approaches for demonstrating additionality is used? (a) Provision of traceable and transparent information showing the baseline was identified on the basis of conservative assumptions, that the project scenario is not part of the identified baseline scenario and that the project will lead to emission reductions or enhancements of removals; (b) Provision of traceable and transparent information that an AIE has already positively determined that a comparable project (to be)	The PDD section B.2 includes analysis of project additionality and is intended to demonstrate that the project scenario is not part of the identified baseline scenario and that the project will lead to reductions of GHG emissions in comparison to the baseline. The analysis is performed based on the latest version (version 06.0.0) of the Tool for the Demonstration and Assessment of Additionality approved by CDM Executive Council and accordingly may be fully applied to Joint Implementation Projects.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	implemented under comparable circumstances has additionality; (c) Application of the most recent version of the "Tool for the demonstration and assessment of additionality. (allowing for a two-month grace period) or any other method for proving additionality approved by the CDM Executive Board".			
29 (a)	Does the PDD provide a justification of the applicability of the approach with a clear and transparent description?	See section 22 of this table.	OK	OK
29 (b)	Are additionality proofs provided?	The additionality of the project activity is demonstrated and assessed with using the "Tool for the demonstration and assessment of additionality" (Version 06.0). To demonstrate of additionality applied: - Identification of alternatives to the project activity consistent with current laws and regulations; - Investment analysis; - Barrier analysis; - Common practice analysis. The mentioned approach of JI leads to the conclusion that the project activity is additional. CAR 05. License to conduct business on the production, transmission and distribution of heat energy issues National Commission, which performs state regulation in public utilities. Please make the appropriate changes. CAR 06. In the PDD listed not valid licenses to conduct business on the production, transmission and distribution of	CAR 05 CAR 06 CAR 07 CAR 08	OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		heat. Please make the appropriate changes. CAR 07. In order to prove that the project activity is profitless for the enterprise the developer shall provide confirmation that the cost of the investments relating to the project activity was not included in the tariffs set during the project period. CAR 08. Please provide the document "Financing plan of JI project" to which the reference exists on page 26 of the PDD.		
29 (c)	Is the additionality demonstrated appropriately as a result?	Yes, the additionality demonstrated appropriately as a result	OK	OK
30	If the approach 28 (c) is chosen, are all explanations, descriptions and analyses made in accordance with the selected tool or method?	Yes. See section B.2 of the PDD.	OK	OK
Approved CDM methodology approach only				
31 (a)	Does the PDD provide the title, reference number and version of the approved CDM methodology used?	N/A	N/A	N/A
31 (b)	Does the PDD provide a description of why and how the referenced approved CDM methodology is applicable to the project?	N/A	N/A	N/A
31 (c)	Are all explanations, descriptions and analyses with regard to additionality made in accordance with the selected methodology?	N/A	N/A	N/A
31 (d)	Are additionality proofs provided?	N/A	N/A	N/A
31 (e)	Is the additionality demonstrated appropriately as a result?	N/A	N/A	N/A
Project boundary (applicable except for JI LULUCF projects				
JI specific approach only				
32 (a)	Does the project boundary defined in the PDD	The project's spatial boundaries are defined in the PDD.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	encompass all anthropogenic emissions by sources of GHGs that are: (i) Under the control of the project participants? (ii) Reasonably attributable to the project? (iii) Significant?	See section B.3.		
32 (b)	Is the project boundary defined on the basis of a case-by-case assessment with regard to the criteria referred to in 32 (a) above?	See section 32 (a) of this table.	OK	OK
32 (c)	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?	The delineation of the project boundary and the gases and sources included described in the PDD by using figure.	OK	OK
32 (d)	Are all gases and sources included explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified?	All gases and sources included are explicitly stated; refer to 32 (a) above. All exclusions made are appropriate as a conservative or logic assumption.	OK	OK
Approved CDM methodology approach only				
33	Is the project boundary defined in accordance with the approved CDM methodology?	N/A	N/A	N/A
Crediting period				
34 (a)	Does the PDD state the starting date of the project as the date on which the implementation or construction or real action of the project will begin or began?	The PDD states 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, and the starting date is 03/06/2003. CL 07. Please provide Agreement between the Institute of Engineering Ecology and Vinnytsia regional state municipal enterprise of heat supply network (VRSMEHSN) “Vinnytsiateplocomunenergo”№ 405 dated 29/10/1999.	CL 07	OK
34 (a)	Is the starting date after the beginning of 2000?	Refer to 34 (a).	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
34 (b)	Does the PDD state the expected operational lifetime of the project in years and months?	Operational lifetime is defined as 29 years and 7 months (355 months).	OK	OK
34 (c)	Does the PDD state the length of the crediting period in years and months?	PDD state the length of the crediting period in years and months.	OK	OK
34 (c)	Is the starting date of the crediting period on or after the date of the first emission reductions or enhancements of net removals generated by the project?	Yes. The starting date of the crediting period is after the date of the first emission reductions.	OK	OK
34 (d)	Does the PDD state that the crediting period for issuance of ERUs starts only after the beginning of 2008 and does not extend beyond the operational lifetime of the project?	Yes. According to the PDD the crediting period for issuance of ERUs does not extend beyond operational lifetime of the project.	OK	OK
34 (d)	If the crediting period extends beyond 2012, does the PDD state that the extension is subject to the host Party approval? Are the estimates of emission reductions or enhancements of net removals presented separately for those until 2012 and those after 2012?	The estimated emission reductions are provided in the table of the PDD section A.4.3.1.	OK	OK
Monitoring plan				
35	Does the PDD explicitly indicate which of the following approaches is used? − JI specific approach − Approved CDM methodology approach	It is explicitly indicated that a JI specific approach is chosen.	OK	OK
JI specific approach only				
36 (a)	Does the monitoring plan describe: − All relevant factors and key characteristics that will be monitored? − The period in which they will be monitored? − All decisive factors for the control and	The monitoring plan describes: - data to be monitored: natural gas consumption by boiler houses and CHPs, electricity consumption by boiler-houses and CHPs and heat supply stations, electricity generation by a CHP, averaged net calorific value of natural gas, heat	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	reporting of project performance?	energy consumption by the water supply system, electricity consumption by water supply system, carbon emission factor for natural gas, for electricity consumption and generation, average outside temperature during the heating period, average inside temperature during the heating period, number of consumers of hot water supply service, heated area for every boiler house, averaged heat transfer factor of heated buildings in the base year, heated area of reconstructed buildings with application of new heat insulation, heated area of newly connected buildings with application of the new heat insulation, heat transfer factor of buildings with new heat insulation, heating period duration for every boiler house, duration of period of hot water supply service, maximum connected load to a boiler-house that is required for heating, connected load to a boiler-house that is required for hot water supply service, standard specific discharge of hot water per personal account, total volume of water supplied to consumers. - the period in which they will be monitored: every day or once per year; - all decisive factors for the control and reporting of project performance: statistics forms; quality control (QC) and quality assurance (QA) procedures; the operational and management structure that will be applied in implementing the monitoring plan.		
36 (b)	Does the monitoring plan specify the indicators, constants and variables used that are reliable, valid and provide transparent picture of the emission reductions or enhancements of net	The monitoring plan specifies variables used. It provides transparent picture of the emission reductions.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	removals to be monitored?			
36 (b)	If default values are used: − Are accuracy and reasonableness carefully balanced in their selection? − Do the default values originate from recognized sources? − Are the default values supported by statistical analyses providing reasonable confidence levels? − Are the default values presented in a transparent manner?	Constants used are the default values of the parameters as carbon emission factor of each fuel. The default values originate from recognized sources and are presented in a transparent manner.	OK	OK
36 (b) (i)	For those values that are to be provided by the project participants, does the monitoring plan clearly indicate how the values are to be selected and justified?	The monitoring plan indicates how the values are to be selected and justified.	OK	OK
36 (b) (ii)	For other values, − Does the monitoring plan clearly indicate the precise references from which these values are taken? − Is the conservativeness of the values provided justified?	The monitoring plan indicate the precise references from which these values are taken. The conservativeness of the values is justified.	OK	OK
36 (b) (iii)	For all data sources, does the monitoring plan specify the procedures to be followed if expected data are unavailable?	See section D of the PDD.	OK	OK
36 (b) (iv)	Are International System Unit (SI units) used?	SI units are used. Also there are data units used in accordance with the applied JI specific approach.	OK	OK
36 (b) (v)	Does the monitoring plan note any parameters, coefficients, variables, etc. that are used to calculate baseline emissions or net removals but are obtained through monitoring?	See section B.1 of the PDD.	OK	OK
36 (b) (v)	Is the use of parameters, coefficients,	There is consistency between parameters, coefficients,	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	variables, etc. consistent between the baseline and monitoring plan?	variables, etc. used in baseline and monitoring plan.		
36 (c)	Does the monitoring plan draw on the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring"?	The monitoring plan draws on the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring".	OK	OK
36 (d)	Does the monitoring plan explicitly and clearly distinguish: (i) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), and that are available already at the stage of determination? (ii) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination? (iii) Data and parameters that are monitored throughout the crediting period?	See the PDD section D.1. The data and parameters that are monitored throughout the crediting period are clearly indicated in the PDD (section D.1. and Annex 3).	OK	OK
36 (e)	Does the monitoring plan describe the methods employed for data monitoring (including its frequency) and recording?	In the table of the PDD section D.1.1 the time of monitoring (frequency) and the source of data to be used are indicated for all the monitored parameters and data.	OK	OK
36 (f)	Does the monitoring plan elaborate all algorithms and formulae used for the estimation/calculation of baseline emissions/removals and project emissions/removals or direct monitoring of emission reductions from the project, leakage, as appropriate?	All algorithms and formulae used for the estimation of baseline and project emissions are indicated and explained in the PDD.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
36 (f) (i)	Is the underlying rationale for the algorithms/formulae explained?	The underlying rationale for the algorithms/formulae is explained.	OK	OK
36 (f) (ii)	Are consistent variables, equation formats, subscripts etc. used?	Consistent variables, equation formats, subscripts etc. are used.	OK	OK
36 (f) (iii)	Are all equations numbered?	Yes.	OK	OK
36 (f) (iv)	Are all variables, with units indicated defined?	Yes.	OK	OK
36 (f) (v)	Is the conservativeness of the algorithms/procedures justified?	The conservativeness of the algorithms/procedure is indicated in the PDD.	OK	OK
36 (f) (v)	To the extent possible, are methods to quantitatively account for uncertainty in key parameters included?	Uncertainty level of data is indicated in the table of Quality control and quality assurance (QA) procedures undertaken for the data monitored (see section D.2 of the PDD).	OK	OK
36 (f) (vi)	Is consistency between the elaboration of the baseline scenario and the procedure for calculating the emissions or net removals of the baseline ensured?	There is consistency between the elaboration on the baseline scenario and calculating the baseline emission in the monitoring plan and on spreadsheet.	OK	OK
36 (f) (vii)	Are any parts of the algorithms or formulae that are not self-evident explained?	The formulae used in the PDD are sufficiently described.	OK	OK
36 (f) (vii)	Is it justified that the procedure is consistent with standard technical procedures in the relevant sector?	Relevant national and/or sectoral policies and circumstances are taken into account in the project.	OK	OK
36 (f) (vii)	Are references provided as necessary?	CAR 09. Internet link 18, 19, 27, 40 is not working. Please make the appropriate corrections. CAR 10. Link 26 leads to a deleted page. Please make the appropriate changes. CAR 11. Please provide a detailed location of information by reference 28, 29.	CAR 09 CAR 10 CAR 11	OK OK OK
36 (f) (vii)	Are implicit and explicit key assumptions	All key assumptions are explained in a transparent manner if	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	explained in a transparent manner?	needed.		
36 (f) (vii)	Is it clearly stated which assumptions and procedures have significant uncertainty associated with them, and how such uncertainty is to be addressed?	See section 36 (f) (v) of this table.	OK	OK
36 (f) (vii)	Is the uncertainty of key parameters described and, where possible, is an uncertainty range at 95% confidence level for key parameters for the calculation of emission reductions or enhancements of net removals provided?	See section 36 (f) (v) of this table.	OK	OK
36 (g)	Does the monitoring plan identify a national or international monitoring standard if such standard has to be and/or is applied to certain aspects of the project? Does the monitoring plan provide a reference as to where a detailed description of the standard can be found?	Relevant national and/or sectoral policies and circumstances are taken into account while developing the monitoring plan for this project.	OK	OK
36 (h)	Does the monitoring plan document statistical techniques, if used for monitoring, and that they are used in a conservative manner?	See section D of the PDD.	OK	OK
36 (i)	Does the monitoring plan present the quality assurance and control procedures for the monitoring process, including, as appropriate, information on calibration and on how records on data and/or method validity and accuracy are kept and made available upon request?	Uncertainty level of data is indicated in the table of Quality control and quality assurance (QA) procedures undertaken for the data monitored. Information on calibration procedures were checked during site-visit and found satisfactory. CL 08. Please clarify why Excel spreadsheets Appendix 1 in the boilerhouse on the street. Medvedeva, 1 indicated boilers КВГ-6,5 whereas provided passports boilers КВГ-7, 56 registration number 1090 serial number 574 and registration	CL 08	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		number 1094 serial number 573?		
36 (j)	Does the monitoring plan clearly identify the responsibilities and the authority regarding the monitoring activities?	Mr. Oleksiy Teterya, First Deputy Head of the Board of PJSC "Oblteplocomunenergo" is responsible for operation management of the JI project, data storage and archiving. Dr. Dmytro Paderno, deputy director of the Institute of Engineering Ecology, is responsible for support and coordination of monitoring and verification processes. Ms. Kateryna Korinchuk, scientific researcher of the Institute of Engineering Ecology, is responsible for data processing according to the JI project specific approach, development of Monitoring Reports.	OK	OK
36 (k)	Does the monitoring plan, on the whole, reflect good monitoring practices appropriate to the project type? If it is a JI LULUCF project, is the good practice guidance developed by IPCC applied?	Monitoring techniques are in line with current operation routines at the enterprise.	OK	OK
36 (l)	Does the monitoring plan provide, in tabular form, a complete compilation of the data that need to be collected for its application, including data that are measured or sampled and data that are collected from other sources but not including data that are calculated with equations?	Yes. See section D of PDD	OK	OK
36 (m)	Does the monitoring plan indicate that the data monitored and required for verification are to be kept for two years after the last transfer of ERUs for the project?	Data monitored and required for emission reductions calculation and verification, according to paragraph 37 of the JI guidelines, are to be kept for two years after the last transfer of ERUs for the project.	OK	OK
37	If selected elements or combinations of	See section D of the PDD.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	approved CDM methodologies or methodological tools are used for establishing the monitoring plan, are the selected elements or combination, together with elements supplementary developed by the project participants in line with 36 above?			
Approved CDM methodology approach only				
38 (a)	Does the PDD provide the title, reference number and version of the approved CDM methodology used?	N/A	N/A	N/A
38 (a)	Is the approved CDM methodology the most recent valid version when the PDD is submitted for publication? If not, is the methodology still within the grace period (was the methodology revised to a newer version in the past two months)?	N/A	N/A	N/A
38 (b)	Does the PDD provide a description of why the approved CDM methodology is applicable to the project?	N/A	N/A	N/A
38 (c)	Are all explanations, descriptions and analyses pertaining to monitoring in the PDD made in accordance with the referenced approved CDM methodology?	N/A	N/A	N/A
38 (d)	Is the monitoring plan established appropriately as a result?	N/A	N/A	N/A
Applicable to both JI specific approach and approved CDM methodology approach				
39	If the monitoring plan indicates overlapping monitoring periods during the crediting period: (a) Is the underlying project composed of clearly identifiable components for which emission reductions or enhancements of	N/A	N/A	N/A

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	removals can be calculated independently? (b) Can monitoring be performed independently for each of these components (i.e. the data/parameters monitored for one component are not dependent on/effect data/parameters to be monitored for another component)? (c) Does the monitoring plan ensure that monitoring is performed for all components and that in these cases all the requirements of the JI guidelines and further guidance by the JISC regarding monitoring are met? (d) Does the monitoring plan explicitly provide for overlapping monitoring periods of clearly defined project components, justify its need and state how the conditions mentioned in (a)-(c) are met?			
Leakage				
JI specific approach only				
40 (a)	Does the PDD appropriately describe an assessment of the potential leakage of the project and appropriately explain which sources of leakage are to be calculated and which can be neglected?	No leakages are expected.	OK	OK
40 (b)	Does the PDD provide a procedure for an ex ante estimate of leakage?	See the section 40 (a) of this table.	OK	OK
Approved CDM methodology approach only				
41	Are the leakage and the procedure for its estimation defined in accordance with the approved CDM methodology?	N/A	N/A	N/A
Estimation of emission reductions or enhancements of net removals				
42	Does the PDD indicate which of the following	Assessment of emissions in the baseline scenario and in the	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	approaches it chooses? (a) Assessment of emissions or net removals in the baseline scenario and in the project scenario (b) Direct assessment of emission reductions	project scenario is chosen.		
43	If the approach (a) in 42 is chosen, does the PDD provide ex ante estimates of: (a) Emissions or net removals for the project scenario (within the project boundary)? (b) Leakage, as applicable? (c) Emissions or net removals for the baseline scenario (within the project boundary)? (d) Emission reductions or enhancements of net removals adjusted by leakage?	PDD provides ex ante estimates of: (a) Emissions for the project scenario (Section E.1); (b) No leakages are expected; (c) Emissions for the baseline scenario (Section E.4); (d) Emission reductions adjusted by leakage (Section E).	OK	OK
44	If the approach (b) in 42 is chosen, does the PDD provide ex ante estimates of: (a) Emission reductions or enhancements of net removals (within the project boundary)? (b) Leakage, as applicable? (c) Emission reductions or enhancements of net removals adjusted by leakage?	N/A	N/A	N/A
45	For both approaches in 42 (a) Are the estimates in 43 or 44 given: (i) On a periodic basis? (ii) At least from the beginning until the end of the crediting period? (iii) On a source-by-source/sink-by-sink basis? (iv) For each GHG? (v) In tones of CO2 equivalent, using global warming potentials defined by decision	(a) Estimates in 43 are given on the periodic basis, from the beginning until the end of the crediting period, in tones of CO_2 equivalent, on a source-by-source basis, for each GHG. (b) The formulae used in PDD are consistent. (c) Key factors influencing the baseline emissions and the activity level of the project and the project emissions are taken into account, as appropriate. (d) Data sources used for calculating the estimates are clearly identified, reliable and transparent. (e) Default values are taken from identified sources.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	2/CP.3 or as subsequently revised in accordance with Article 5 of the Kyoto Protocol? (b) Are the formula used for calculating the estimates in 43 or 44 consistent throughout the PDD? (c) For calculating estimates in 43 or 44, are key factors influencing the baseline emissions or removals and the activity level of the project and the emissions or net removals as well as risks associated with the project taken into account, as appropriate? (d) Are data sources used for calculating the estimates in 43 or 44 clearly identified, reliable and transparent? (e) Are emission factors (including default emission factors) if used for calculating the estimates in 43 or 44 selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice? (f) Is the estimation in 43 or 44 based on conservative assumptions and the most plausible scenarios in a transparent manner? (g) Are the estimates in 43 or 44 consistent throughout the PDD? (h) Is the annual average of estimated emission reductions or enhancements of net removals calculated by dividing the total estimated emission reductions or enhancements of net removals over the crediting period by the total months of the crediting period and multiplying by twelve?	(f) Estimation in 43 is based on conservative assumptions and the most plausible scenario in a transparent manner. (g) Estimates in 43 are consistent throughout the PDD. The annual average of estimated emission reductions calculated by dividing the total estimated emission reductions over the crediting period by the total months of the crediting period and multiplying by twelve.		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
46	If the calculation of the baseline emissions or net removals is to be performed ex post, does the PDD include an illustrative ex ante emissions or net removals calculation?	Illustrative ex-ante estimation of emission reduction is made on the excel spreadsheet. CAR 12. Please for better identification provide the names of all sheets and tables in a file with the calculations.	CAR 12	OK
Approved CDM methodology approach only				
47 (a)	Is the estimation of emission reductions or enhancements of net removals made in accordance with the approved CDM methodology?	N/A	N/A	N/A
47 (b)	Is the estimation of emission reductions or enhancements of net removals presented in the PDD: − On a periodic basis? − At least from the beginning until the end of the crediting period? − On a source-by-source/sink-by-sink basis? − For each GHG? − In tones of CO_2 equivalent, using global warming potentials defined by decision 2/CP.3 or as subsequently revised in accordance with Article 5 of the Kyoto Protocol? − Are the formula used for calculating the estimates consistent throughout the PDD? − Are the estimates consistent throughout the PDD? − Is the annual average of estimated emission reductions or enhancements of net removals calculated by dividing the total estimated emission reductions or enhancements of net removals over the crediting period by the total	N/A	N/A	N/A

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	months of the crediting period and multiplying by twelve?			
		Environmental impacts		
48 (a)	Does the PDD list and attach documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party?	Yes. For more detailed information, please, see section F.1 of the PDD.	OK	OK
48 (b)	If the analysis in 48 (a) indicates that the environmental impacts are considered significant by the project participants or the host Party, does the PDD provide conclusion and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party?	According to the Ukrainian regulations, the design documentation for the new building, reconstruction and major technical re-equipment of industrial and civil objects must include the environmental impact assessment. The legislative requirements to EIA materials content are enshrined in the Article 36 of the Law of Ukraine «On ecological expertise». Requirements to the structure, composition and content of the EIA sections are enshrined in the state building norms of Ukraine DBN A.2.2-1-2003 “Composition and content of the Environmental Impact Assessment (EIA) materials at designing and construction of enterprises, buildings and premises”. Municipal enterprises that implement the project “Rehabilitation of the Heat and Water Supply Systems in Vinnytsia Region” make the necessary Environmental Impact Assessment for elements of this activity according to Ukrainian legislation. FAR 01. There is no information about measures to reduce	FAR 01 CAR 13 CL 09 CL 10	remains open till the next periodic verification OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		pollutant emissions and greenhouse gases in the air in statements form 2-TP "Air" in 2008-2011 (ME VCC “Vinnytsiamiskteploenergo”, ME “Vinnytsiaoblteploenergo”, DE “Mayak”). CAR 13. Links to SanPiN 4630-88 in case of sewage discharge to sewer is not valid because it given acceptable concentration for surface water bodies. Discharge of sewage into the sewer network cities regulated: "Acceptance of wastewater in the sewer of Vinnitsa" agreement on acceptance of waste water from water service. " determining maximum concentration limits for internal water bodies" is not the correct wording. CL 09. Please clarify how is made a recycling of old equipment and what is positive impact on the environment. CL 10. Please provide evidence that companies send old equipment to recycling.		
Stakeholder consultation				
49	If stakeholder consultation was undertaken in accordance with the procedure as required by the host Party, does the PDD provide: (a) A list of stakeholders from whom comments on the projects have been received, if any? (b) The nature of the comments? (c) A description on whether and how the comments have been addressed?	As project activity won’t provide negative influence on environment and negative social effect, special public discussion was not hold. The authorities (city councils that are the representatives of the population) of Vinnytsia region have expressed the support for the project. CL 11. Please provide a letter of support of the project by local authorities and the Letter of Endorsement from the State Environmental Investment Agency of Ukraine.	CL 11	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
Determination regarding small-scale projects (additional elements for assessment)_Paragraphs 50 - 57_Not applicable				
Determination regarding land use, land-use change and forestry projects _Paragraphs 58 – 64(d)_Not applicable				
Determination regarding programmes of activities_Paragraphs 66 – 73_Not applicable				

Table 2 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
CAR 01. In section A.2 mentioned that the Agreement dated 07/05/2012 on Joint Activity for realization the JI project on GHG emission reduction was signed OJSC "Oblteplocomunenergo", whereas in the text of the Agreement - PJSC "Oblteplocomunenergo." Please make the appropriate changes.	-	This is changed in the PDD, version 04.	Due to the amendments made in the PDD, CAR 01 is closed.
CAR 02. Please fill in Annex 1 information regarding website address Public Joint Stock Company "Oblteplocomunenergo".	-	Website address of the PJSC "Oblteplocomunenergo" is added to Annex 1 to the PDD version 04.	The PDD has been corrected. CAR 02 is closed.
CL 01. Please clarify why the in PDD are specified as Project participants OÜ "BIOTEHNOLOOGIA" Netherlands while in Annex 1 are OÜ "BIOTEHNOLOOGIA" Estonia.	-	This is changed in the PDD, version 04.	Necessary corrections have been made. The issue is closed.

CAR 03. Links on page 9 for information on technical specifications of pumps "Wilo", leading to a deleted page. Please make the appropriate changes.	-	This is changed in the PDD, version 04.	Necessary corrections have been made. The issue is closed.

CL 02. Please provide information which would confirm that the of organizational and operational measures can save energy resources, as stated in the PDD to 30%.	-	Implementation of the organizational and operational measures enables substantial FER saving. For example, the same heat load of a boiler-house may be covered with operation of one, two, three or even more boilers; the only optimization of load distribution between boilers and of boilers' operation modes can lead to improvement of the overall efficiency by 15 – 30 %. Example of the Annual Fuel Utilization Efficiency dependence on the load mode is provided in [http://www.teletherm.ru/lib3.php]. The summarized efficiency of these and other described in PDD (Section A.4.2) organizational and operational measures depends on the current state and operation modes of the system (boiler-house) as a whole, and can achieve 30% and even more.	Based on the explanation received, CL 02 is closed.

CL 03. Please clarify why the Excel spreadsheet Appendix 1 boilerhouse on the Pugachova str., 3 boilers are Kolvi -50 while in the passport Kolvi -100? ?	-	In Appendix 1 type of boilers installed at boiler-house Pugachova str., 3 was provided mistakenly. Corrections are made in the PDD, version 04.	The PDD has been corrected. CL 03 is closed.
CL 04. Please clarify why the Excel spreadsheet Appendix 6 are not specified pumping units MC-30/50 in WPS of II elevation, II psychiatric hospital, Barske shose, 6-km, Berezino according the Act of equipment installation dated 09/09/2009?	-	According to the act of installation dated 09.09.2009 pumps MC-30/50 are installed in machine room of sewage pumping station at psychiatric hospital, Barske shose, 6-km (SPS #2), which is not included to the list of energy consuming objects of ME "Vinnytsiaoblvodokanal" in the relevant reference #18-00-006-24381 dated 05.07.2012 submitted to the State Environmental Investment Agency of Ukraine, and thus is not included in Appendix 6.	Based on the explanation received, CL 04 is closed.
CL 05. Please clarify why the Excel spreadsheet Appendix 6 are not specified pumping units FA 30.78D in SPS №3A on Pyrohova str. according the Act equipment installation dated 06/12/2007 and dated 15/12/2006?	-	In Appendix 6 mistakenly type of old (before replacement) pumps was provided. Corrections are made in Appendix 6 to the PDD, version 04.	Necessary corrections have been made. The issue is closed.

CL 06. Please clarify why the Excel spreadsheet Appendix 6 are specified other pumping units in the SPS No.4 on Nagirna str. while the Act installing equipment dated 17/08/2004 are TS 80 H 200/190 Wilo?	-	Changes are made in the Appendix 6 to the PDD, version 04.	Necessary corrections have been made, CL 06 is closed.
CAR 04. The project has no letters of approval of the Parties involved.	19	As it is provided in Section A.5, according to the adopted procedure, the LoAs by Parties involved will be issued after the project determination.	Pending.
CAR 05. License to conduct business on the production, transmission and distribution of heat energy issues National Commission, which performs state regulation in public utilities. Please make the appropriate changes.	29 (b)	This is changed in the PDD, version 04.	The PDD has been corrected. CAR 05 is closed.
CAR 06. In the PDD listed not valid licenses to conduct business on the production, transmission and distribution of heat. Please make the appropriate changes.	29 (b)	This is changed in the PDD, version 04.	The PDD has been corrected. CAR 06 is closed.

CAR 07. In order to prove that the project activity is profitless for the enterprise the developer shall provide confirmation that the cost of the investments relating to the project activity was not included in the tariffs set during the project period.	29 (b)	References on tariff components for heating and hot water supply service are provided to AIE.	Based on the document received, CAR 07 is closed.
CAR 08. Please provide the document “Financing plan of JI project” to which the reference exists on page 26 of the PDD.	29 (b)	Financing plan of the project realization is provided to AIE.	Based on the document received, CAR 08 is closed.
CL 07. Please provide Agreement between the Institute of Engineering Ecology and Vinnytsia regional state municipal enterprise of heat supply network (VRSMEHSN) “Vinnytsiateplocomunenergo”№ 405 dated 29/10/1999.	34 (a)	Copy of Agreement No. 405 dated 29.10.1999 is provided to AIE.	Based on the document received, CL 07 is closed.
CAR 09. Internet link 18, 19, 27, 40 is not working. Please make the appropriate corrections.	36 (f) (vii)	This is changed in the PDD, version 04.	The PDD has been corrected. CAR 09 is closed.

CAR 10. Link 26 leads to a deleted page. Please make the appropriate changes.	36 (f) (vii)	Unfortunately the document was deleted from this online resource. Copy of the document is provided to AIE. This is changed in the PDD, version 04.	Based on the document received, CAR 10 is closed.
CAR 11. Please provide a detailed location of information by reference 28, 29.	36 (f) (vii)	This is changed in the PDD, version 04.	The PDD has been corrected. CAR 11 is closed.
CL 08. Please clarify why Excel spreadsheets Appendix 1 in the boilerhouse on the street. Medvedeva, 1 indicated boilers КВГ-6,5 whereas provided passports boilers КВГ-7, 56 registration number 1090 serial number 574 and registration number 1094 serial number 573?	36 (i)	KVG-6.5 and KVG-7.56 are different labels for the same boiler. Thus, in the fist case boiler's capacity is pointed in cal/h (6.5 cal/h), in the second case - in MWh (7.56 MWh). In the PDD, version 04, types of boilers installed at boiler-house Medvedeva str., 1 are changed and correspond to their passports.	The PDD has been corrected. CL 08 is closed.
CAR 12. Please for better identification provide the names of all sheets and tables in a file with the calculations.	46	File with calculations contains 11 Appendixes, all Appendixes have relevant number and name. List of Appendixes with their numbers and names is provided in the PDD, section A.4.2 and section E.	Necessary corrections have been made, CAR 12 is closed.

FAR 01. There is no information about measures to reduce pollutant emissions and greenhouse gases in the air in statements form 2-TP "Air" in 2008-2011 (ME VCC “Vinnytsiamiskteploenergo”, ME “Vinnytsiaoblteploenergo”, DE “Mayak”).	48 (b)	At ME VCC “Vinnytsiamiskteploenergo”, ME “Vinnytsiaoblteploenergo” and DE “Mayak” enterprises the appropriate measures for properly filling of the section III of the annual Report on atmospheric air protection (form #2-tp(air)) will be taken.	FAR01 remains open till the next periodic verification.
CAR 13. Links to SanPiN 4630-88 in case of sewage discharge to sewer is not valid because it given acceptable concentration for surface water bodies. Discharge of sewage into the sewer network cities regulated: "Acceptance of wastewater in the sewer of Vinnitsa" agreement on acceptance of waste water from water service. " determining maximum concentration limits for internal water bodies" is not the correct wording.	48 (b)	This is changed in the PDD, version 04.	The PDD has been corrected. CAR 13 is closed.
CL 09. Please clarify how is made a recycling of old equipment and what is positive impact on the environment.	48 (b)	Recycling of the old equipment is not hold at enterprises that implement the project. The relevant changes are made in the PDD, version 04.	The PDD has been corrected. CL 09 is closed.

CL 10. Please provide evidence that companies send old equipment to recycling.	48 (b)	Copies of relevant documentary confirmation are provided to AIE.	Based on the document received, CL 10 is closed.
CL 11. Please provide a letter of support of the project by local authorities and the Letter of Endorsement from the State Environmental Investment Agency of Ukraine.	49	Copies of relevant letters of local authorities and the Letter of Endorsement from the State Environmental Investment Agency of Ukraine are provided to AIE.	Based on the document received, CL 11 is closed.