

# VERIFICATION REPORT "SERVICE-INVEST" LLC

# VERIFICATION OF THE "RECONSTRUCTION OF THE ELECTRICITY GRID OF THE "SERVICE-INVEST" LLC."

SECOND PERIODIC FOR 01.01.2008-31.12.2012

REPORT NO. UKRAINE-VER/0671/2012 REVISION NO. 01

# BUREAU VERITAS CERTIFICATION

Date of first issue:

### Report No: UKRAINE-ver/0671/2012

VERIFICATION REPORT: RECONSTRUCTION OF THE ELECTRICITY GRID OF THE "SERVICE-INVEST" LLC.

Organizational unit:



03/12/2012	Bureau V Holding S	eritas Certification	
<sup>Client:</sup> "Service-Invest" LLC	Client ref.: Oleg Tryf	onov	
Summary: Bureau Veritas Certification ha of the "Service-Invest" LLC.", Ukraine, and applying JI speci to provide for consistent project Kyoto Protocol, the JI rules an well as the host country criteria	is made the 2 <sup>nd</sup> periodic project of "Service-Inve fic approach, on the bas of operations, monitoring d modalities and the su	verification of the "Recons st" LLC located in Donets is of UNFCCC criteria for t and reporting. UNFCCC o osequent decisions by the	struction of the Electricity Grid k and Dnipropetrovsk region, he JI, as well as criteria given criteria refer to Article 6 of the JI Supervisory Committee, as
The verification scope is define Entity of the monitored reduct following three phases: i) des monitoring plan; ii) follow-up it issuance of the final verifica Verification Report & Opinion,	ed as a periodic indepen ions in GHG emissions k review of the monitor nterviews with project s ation report and opinic was conducted using Bi	dent review and ex post de during defined verification ing report against project akeholders; iii) resolution o on. The overall verificatio ureau Veritas Certification in	etermination by the Accredited period, and consisted of the design and the baseline and of outstanding issues and the n, from Contract Review to nternal procedures.
The first output of the verific Actions Requests (CR, CAR a	ation process is a list nd FAR), presented in A	of Clarification, Corrective ppendix A.	Actions Requests, Forward
In summary, Bureau Veritas C approved project design docuruns reliably and is calibrated GHG emission reductions. The omissions, or misstatements monitoring period from 01/07 95 173 tonnes of CO2eq for 128 800 tonnes of CO2eq for Our opinion relates to the purelated to the approved project	ertification confirms that uments. Installed equipu- appropriately. The mor- le GHG emission reduct, and the ERUs issue 1/2008 to 31/12/2012 ( 01/01/2009-31/12/2009 01/01/2011-31/12/2011 roject's GHG emissions to baseline and monitorin	the project is implemented ment being essential for g nitoring system is in place tion is calculated accuratel d totalize 579 381 tonnes 113 879 tonnes of CO2e 122 616 tonnes of CO2eq and resulting GHG emis g, and its associated docur	as planned and described in enerating emission reduction and the project is generating y and without material errors, s of CO2 equivalent for the q for 01/01/2008-31/12/2008, eq for 01/01/2010-31/12/2010, for 01/01/2012-31/12/2012). sion reductions reported and ments.
Report No.: S Ukraine-ver/0671/2012	ubject Group:	×	
Project title: Reconstruction of the Electric Invest" LLC.	ity Grid of the "Service-		
Work carried out by: Vyacheslav Yeriomin – Verifier Sergii Vertetetskyi – Team	Team Leader, Lead Member, Verifier	2	
Work reviewed by: Ivan Sokolov - Technical Borys Kostykovskyi – tec	Reviewer hnical specialist	No distribution wit Client or responsi	hout permission from the ble organizational unit
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# **1 INTRODUCTION**

"Service-Invest" LLC has commissioned Bureau Veritas Certification to verify the emissions reductions of its JI project "Reconstruction of the Electricity Grid of the "Service-Invest" LLC." (hereafter called "the project") at Donetsk and Dnipropetrovs'k region, Ukraine.

This report summarizes the findings of the verification 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

Verification is the periodic independent review and ex post determination by the Accredited Independent Entity of the monitored reductions in GHG emissions during defined verification period.

The objective of verification can be divided in Initial Verification and Periodic Verification.

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

The verification is not meant to provide any consulting towards the Client. However, stated requests for clarifications, corrective and/or forward actions may provide input for improvement of the project monitoring towards reductions in the GHG emissions.

#### **1.3 Verification Team**

The verification team consists of the following personnel:

Vyacheslav Yeriomin Bureau Veritas Certification Team Leader, Climate Change Verifier

Sergii Verteletskyi Bureau Veritas Certification Climate Change Verifier

This verification report was reviewed by:

Ivan Sokolov Bureau Veritas Certification, Internal Technical Reviewer

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# 2 METHODOLOGY

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

In order to ensure transparency, a verification 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 verification and the results from verifying the identified criteria. The verification protocol serves the following purposes:

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

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

### 2.1 Review of Documents

The Monitoring Report (MR) submitted by "Eco-Elta" LLC and additional background documents related to the project design and baseline, i.e. country Law, Project Design Document (PDD), and Guidance on criteria for baseline setting and monitoring, Host party criteria, Kyoto Protocol, Clarifications on Verification Requirements to be Checked by an Accredited Independent Entity were reviewed.

The verification findings presented in this report relate to the Monitoring Report version(s) 1.1 and project as described in the determined PDD.

#### 2.2 Follow-up Interviews

On 05/12/2012 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 "Service-Invest" LLC and "Eco-Elta" LLC were interviewed (see References). The main topics of the interviews are summarized in Table 1.

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#### Table 1 Interview topics

Interviewed organization	Interview topics
"Service-Invest" LLC	<ul> <li>Organizational structure</li> <li>Responsibilities and authorities</li> <li>Roles and responsibilities for data collection and processing</li> <li>Installation of equipment</li> <li>Data logging, archiving and reporting</li> <li>Metering equipment control</li> <li>Metering record keeping system, database</li> <li>Training of personnel</li> <li>Quality management procedures and technology</li> </ul>
	<ul> <li>Internal audits and check-ups</li> </ul>
CONSULTANT "Eco-Elta" LLC	<ul> <li>Monitoring plan</li> <li>Monitoring report</li> <li>Deviations from PDD</li> <li>ERUs calculation model</li> </ul>

# 2.3 Resolution of Clarification, Corrective and Forward Action Requests

The objective of this phase of the verification 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 GHG emission reduction calculation.

If the Verification Team, in assessing the monitoring report and supporting documents, identifies issues that need to be corrected, clarified or improved with regard to the monitoring requirements, it should 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 that is not in accordance with the monitoring plan;

(b) Clarification request (CL), requesting the project participants to provide additional information for the Verification Team to assess compliance with the monitoring plan;

(c) Forward action request (FAR), informing the project participants of an issue, relating to the monitoring that needs to be reviewed during the next verification period.

The Verification 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 verification.

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

### **3 VERIFICATION CONCLUSIONS**

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

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

The Clarification, Corrective and Forward Action Requests are stated, where applicable, in the following sections and are further documented in the Verification Protocol in Appendix A. The verification of the Project resulted in 8 Corrective Action Requests, 0 Clarification Requests, and 0 Forward Action Requests.

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

#### 3.1 Remaining issues and FARs from previous verifications

There are no FARs pending from the determination and first verification for period 01/01/2004-31/12/2007, provided by Bureau Veritas.

#### 3.2 **Project approval by Parties involved (90-91)**

Written project approvals have been obtained from DFPs of Parties Involved. Letter of Approval #3503/23/7 has been issued by State Environment Investment Agency of Ukraine 16/11/2012. Letter of Approval #2012JI50 has been issued by the Minister of Economic affairs, agriculture and innovation of Kingdom Netherlands 02/11/2012

The abovementioned written approval is unconditional.

Identified problem areas applicable to written project approvals, project participants responses and Bureau Veritas Certification conclusions are listed in the Annex A of this Report (refer to CAR01)

#### 3.3 **Project implementation (92-93)**

The activity for reduction of electricity losses in "Service-Invest" grids was started in 2003 year in frames of JI project. The project has been implemented during 2003-2012 years. List of measures, implemented during the monitoring period, is followed:

#### In 2008:

 11,6 kilometers of the 35kV wires replaced. The AS-150 wire was replaced with the AS-185; the AS-70 and AS-95 wires were replaced with the AS-120 wire; AS-120 wire was replaced with the AS-240 wire.

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- one CE6805V (accuracy class 0,5) electricity meter replaced with the EA02RAL meter (accuracy class – 0,2) at the Donetskaya-110 substation.
- two CE6805V (accuracy class 0,5) electricity meters replaced with the EA02RAL meters (accuracy class – 0,5) at the Shverinka-110 substation.
- one SA4U (accuracy class 2) electricity meter replaced with the EA02RAL meters (accuracy class – 0,5) at the Kuteynikovo-35 substation.
- six CE6805V (accuracy class 0,5) electricity meter replaced with the EA02RAL meters (one with the accuracy class 0,2 and five with the accuracy class 0,5) at the Novotroitskaya-110 substation.
- twelve CE6805V (accuracy class 0,5) electricity meter replaced with the EA02RAL meters (accuracy class 0,5) at the KHP-35 substation.
- one CE6805V (accuracy class 0,5) electricity meter replaced with the EA02RAL meter (accuracy class – 0,2) at the Kramotorsk-gorod-110 substation.
- two CE6805V (accuracy class 0,5) electricity meters replaced with the EA02RAL meters (accuracy class – 0,2) at the Leninskaya-110 substation.

#### In 2009:

- 15,488 kilometers of the 35kV wires replaced. The AS-70 and AS-95 wires were replaced with the AS-120 wire; AS-120 wire was replaced with the AS-240 wire.

- six CE6805V (accuracy class 0,5) electricity meter replaced with the EA02RAL meters (accuracy class 0,2) at the Vozrozhdeniye-110 substation.

- eleven CE6805V (accuracy class 0,5) electricity meter replaced with the EA02RAL meters (accuracy class – 0,5) at the Metallist-35 substation.

- two SA4U (accuracy class 2) electricity meter replaced with the EA02RAL meters (accuracy class – 0,5) at the Styla-110 substation.

- two TDNS-16000/35 (loses coefficient 0,75) transformers replaced with the TDTN-40000/110 (loses coefficient 0,092 and 0,101 respectively) ones at the Vozrozhdeniye-110 substation.

#### In 2010:

- 11,9 kilometers of the 35kV lines were repaired.

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- seven CE6805V (accuracy class 0,5) electricity meter replaced with the A180505RAL meters (accuracy class 0,5) at the Yakovlevka-35 substation.

- TDTG-31500/110 (loses coefficient 1,5) transformers replaced with the TDTN-40000/110 (loses coefficient 0,07) ones at the Styla-110 substation.

#### In 2011:

- 9,56 kilometers of the 35kV and 110 kV lines were replaced and repaired.

- TDTG-40500/110 (loses coefficient 3,5) transformers replaced with the TDTN-40000/110-U1 (loses coefficient 0,086) ones at the Ugolno-Rtutnaya-110 substation.

#### In 2012:

- 1,132 kilometers of the 35kV lines were replaced and repaired.
- TDTG-40500/110 (loses coefficient 3,85) transformers replaced with the TDTN-40000/110-U1 (loses coefficient 0,086) ones at the HSPKZ -110 substation.
- TD-15000/35 (loses coefficient 4,57) transformer replaced with the TDNS-16000/35 (loses coefficient 0,085) one at the Yelenovka-35 substation.

The difference between values of ERUs generated in 2012 year indicated in the PDD and in the Monitoring Report is explained in the next follow. Indicated in the PDD estimation for 2012 year is prognoses on the annual values for 2003-2011 years.

Identified problem areas applicable to project implementation status, project participant's responses and Bureau Veritas Certification conclusions are listed in the Annex A of this Report (refer to CAR02, CAR03)

# 3.4 Compliance of the monitoring plan with the monitoring methodology (94-98)

The monitoring occurred in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website.

For calculating the emission reductions, key factors, such as prices on sold and bayed electric energy, availability of work power and finances, state politic in energetic branch, influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project were taken into account, as appropriate.

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Data sources used for calculating emission reductions, such as state reporting form 1B-TVE, reports on performed works, statements on accepted-transmitted electric energy, are clearly identified, reliable and transparent.

Emission factors, including default emission factors, are selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.

The calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in a transparent manner.

Identified problem areas applicable to Compliance of the monitoring plan with the monitoring methodology, project participant's responses and Bureau Veritas Certification conclusions are listed in the Annex A of this Report (refer to CAR04)

# 3.5 Revision of monitoring plan (99-100)

"Not applicable"

#### 3.6 Data management (101)

The data and their sources, provided in monitoring report, are clearly identified, reliable and transparent.

The implementation of data collection procedures is in accordance with the monitoring plan, including the quality control and quality assurance procedures. These procedures are mentioned in the section "References" of this report.

The function of the monitoring equipment, including its calibration status, is in order. Calibration of project measuring devices (mainly power meters at "Service-Invest" LLC substations) are provided by accredited State Enterprises "Donetsk Scientific Production Center for the Standardization, Metrology and Certification", "Dnipropetrovsk Scientific Production Center for the Standardization, Metrology and Certification" and the Manufacturer. "Service-Invest" LLC installed automatized system for electric energy account, mentioned system is in work and calibrated in appropriate way.

The evidence and records used for the monitoring are maintained in a traceable manner. Based on electric energy acceptance-transmittance statements monthly and yearly state report forms 1B-TVE are used by project developer for emission reduction calculations.

The data collection and management system for the project is in accordance with the monitoring plan. The data collection system is described in the determined PDD and Monitoring Report, in work during the verification period, reliable and transparent.

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Identified problem areas applicable to project data management, project participant's responses and Bureau Veritas Certification conclusions are listed in the Annex A of this Report (refer to CAR05- CAR08)

# 3.7 Verification regarding programmes of activities (102-110)

"Not applicable"

# **4 VERIFICATION OPINION**

Bureau Veritas Certification has performed the 2<sup>nd</sup> periodic verification of the "Reconstruction of the Electricity Grid of the "Service-Invest" LLC." Project in Donetsk and Dnipropetrovs'k Region, Ukraine, which applies JI specific approach. The verification 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 verification consisted of the following three phases: i) desk review of the monitoring report against 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 verification report and opinion.

The management of "Service-Invest" LLC is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions of the project on the basis set out within the project Monitoring and Verification Plan indicated in the final PDD version. The development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of GHG emission reductions from the project, is the responsibility of the management of the project.

Bureau Veritas Certification verified the Project Monitoring Report version 1.1 for the reporting period as indicated below. Bureau Veritas Certification confirms that the project is implemented as planned and described in approved project design documents. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions.

Bureau Veritas Certification can confirm that the GHG emission reduction is accurately calculated and is free of material errors, omissions, or misstatements. Our opinion relates to the project's GHG emissions and resulting GHG emissions reductions reported and related to the approved project baseline and monitoring, and its associated documents. Based on the information we have seen and evaluated, we confirm, with a reasonable level of assurance, the following statement:

<u>Reporting period</u> : From 01/01/2008 to 31/12/2012							
Baseline emissions	: 1 271 790	tonnes of CO2 equivalent.					
Project emissions	: 717 909	tonnes of CO2 equivalent.					
Emission Reductions	: 579 381	tonnes of CO2 equivalent.					

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: 262503	tonnes of CO <sub>2</sub> equivalent.
: 148624	tonnes of CO <sub>2</sub> equivalent.
: 113879	tonnes of CO <sub>2</sub> equivalent.
: 240017	tonnes of CO <sub>2</sub> equivalent.
: 144844	tonnes of CO <sub>2</sub> equivalent.
: 95173	tonnes of CO <sub>2</sub> equivalent.
: 259920	tonnes of CO <sub>2</sub> equivalent.
: 137304	tonnes of CO <sub>2</sub> equivalent.
: 122616	tonnes of CO <sub>2</sub> equivalent.
: 273465	tonnes of CO <sub>2</sub> equivalent.
: 144665	tonnes of CO <sub>2</sub> equivalent.
: 128800	tonnes of CO <sub>2</sub> equivalent.
: 261 385	tonnes of CO2 equivalent.
: 142 472	tonnes of CO2 equivalent.
: 118 913	tonnes of CO2 equivalent.
	<ul> <li>: 262503</li> <li>: 148624</li> <li>: 113879</li> <li>: 240017</li> <li>: 144844</li> <li>: 95173</li> <li>: 259920</li> <li>: 137304</li> <li>: 122616</li> <li>: 273465</li> <li>: 144665</li> <li>: 128800</li> <li>: 261 385</li> <li>: 142 472</li> <li>: 118 913</li> </ul>

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# **5 REFERENCES**

#### Category 1 Documents:

Documents provided by "Eco-Elta" LLC that relate directly to the GHG components of the project.

- /1/ Project Design Document "Reconstruction of the Electricity Grid of the "Service-Invest" LLC." version 1.2.2 dated 25/06/2012
- /2/ Monitoring Report "Reconstruction of the Electricity Grid of the "Service-Invest" LLC." version 1.0 dated 19/11/2012
- /3/ Monitoring Report "Reconstruction of the Electricity Grid of the "Service-Invest" LLC." version 1.1 dated 17/01/2013
- /4/ ERUs calculation file "ERU\_Calculations\_Service-Invest.xls"
- /5/ Letter of Approval #3503/23/7 dated 16/11/2012 issued by State Environment Investment Agency of Ukraine
- /6/ Letter of Approval #2012JI50 issued 02/11/2012 by the Minister of Economic Affairs, Agriculture and Innovation of The Netherlands

#### Category 2 Documents:

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

- /1/ Certificate #12SPK 768290 dated 02/03/2012 on air transmitting line work and repair specialist advanced training
- /2/ Certificate #12SPK 768286 dated 02/03/2012 on air transmitting line work and repair specialist advanced training
- /3/ Certificate #12SPK 826704 dated 23/03/2012 on region energy system auditor advanced training
- /4/ Certificate #12SPK 779453 dated 23/03/2012 on relay protection and emergency automatic specialist advanced training
- /5/ Certificate #12SPK 826713 dated 23/03/12 on energy system central dispatcher service specialist advanced training
- /6/ Certificate #12SPK 779486 dated 23/03/2012 on region energy system auditor advanced training
- /7/ Certificate #12SPK 826701 dated 23/03/2012 on region energy system auditor advanced training
- /8/ Statements #58, 60 dated 27/01/2012 on equipment repair workshop and substation groups electrical fitters advanced training
- /9/ Statements #86 dated 10/02/2012 on equipment repair workshop and substation groups electrical fitters advanced training and #59 on testing and measuring wiremans advanced training
- /10/ Statements #111-120 dated 24/02/21012 on substation 35-110 KV servicing wireman advanced training
- /11/ Statements #55, 56 dated 27/01/2012 on equipment repair workshop and substation groups electrical fitters advanced training
- /12/ Certificate #1623-1626 dated 10/02/2012 on air transmitting line work and repair specialist advanced training

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- /13/ Certificates #1804, 1805 dated 24/02/2012 on air transmitting lines departments chiefs advanced trainings
- /14/ Certificates #2050 on "Service-Invest" LLC electric laboratory head advanced training, #2051 on insulation and voltage overload service engineer advanced training, dated 23/03/2012
- /15/ Certificate on training "Line protection devices 7SA6x, 7UT6x, 7SJ6x and software DIGSI4.8x operation" dated 25/04/2008
- /16/ Certificate on training "Line protection devices 7SA6x, 7UT6x, 7SJ6x and software DIGSI4.8x operation" dated 25/04/2008
- /17/ Certificate on training "Line protection devices 7SA6x, 7UT6x, 7SJ6x and software DIGSI4.8x operation" dated 25/04/2008
- /18/ Replacement schedule on power meter at "Service Invest" LLC substations
- /19/ Statement on acceptance of power transformer TDTN-40000/110Y1 prod/#158146, substation 110KV Davydivka-Pivnichna
- /20/ Statement on acceptance of power transformer TDTN-40000/110Y1 prod/#159350, substation 110KV Enakievo dated 25.12.2008
- /21/ Statement on acceptance of power transformer TDTN-40000/110Y1 prod/#158146, substation 110/35/6 KV Styla dated 30/09/2010
- /22/ Statement on acceptance of power transformer TDTN-40000/110Y1 prod/#160182, substation 110/35/6 KV Styla dated 31/12/2010
- /23/ Statement on acceptance of power transformer TRDNS-25000/35Y3 prod #156923, substation 110 KV Enakievo dated 04/02/2010
- /24/ Statement on acceptance-transmittance of power transformer TDTN-40000/110Y1 prod #160101 substation 110/35/6 KV Vidrodzhennya dated 31/12/2009
- /25/ Statement on acceptance-transmittance of power transformer TDTN-40000/110Y1 prod #160100 substation 110/35/6 KV Vidrodzhennya dated 31/12/2009
- /26/ Permit #1410136200-78 dated 24/02/2011 on air pollutant by stationary sources substation 110 KV Donetska
- /27/ Permit #1410138 300-26 dated 24/02/2011 on air pollutant by stationary sources substation 110 KV Chulkovka
- /28/ Permit #1410136300-61 dated 24/02/2011 on air pollutant by stationary sources substation 35 KV Donetska
- /29/ Polymer insulator IKP-120-110-5
- /30/ Examples of self-supporting air
- /31/ Certificate #02/04-1501 on calibration of power meters Euro-Alpha EA05RAL-P4B-4 #01 128 524 від 26/12/2011
- /32/ Certificate #02/04-1500 on calibration of power meters Euro-Alpha EA05RAL-P4B-4 #01 128 724 від 26/12/2011
- /33/ Certificate #02/04-1502 on calibration of power meters Euro-Alpha EA05RAL-P4B-4 №01 128 701 dated 26/12/2011
- /34/ Certificate #02/04-1505 on calibration of power meters Euro-Alpha EA05RAL-P4B-4 №01 128 701 dated 27/12/2011
- /35/ Certificate #02/04-1503 on calibration of power meters Euro-Alpha EA05RAL-P4B-4 №01 128 684 dated 27.12.2011
- /36/ Certificate #02/04-1491D on calibration of power meters Euro-Alpha EA05RAL-

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P4B-4 Nº01 128 739 dated 23/12/2011

- /37/ Certificate #02/04-1478 on calibration of power meters Euro-Alpha EA05RAL-P4B-4 №01 125 400 від 22/12/2011
- /38/ Certificate #02/04-1479 on calibration of power meters Euro-Alpha EA05RAL-P4B-4 №01 128 353 від 22/12/2011
- /39/ Certificate #02/04-1487 on calibration of power meters Euro-Alpha EA05RAL-P4B-4 №01 128 525 від 23.12.2011
- /40/ Certificate #02/04-1489 on power meter Euro-Alpha EA05RAL-P4B-4 #01 128 720 calibration dated 23/12/2011
- /41/ Certificate #02/04-1497 on power meter Euro-Alpha EA05RAL-P4B-4 #01 128 528 calibration dated 26/12/2011
- /42/ Certificate #02/04-1498 on power meter Euro-Alpha EA05RAL-P4B-4 #01 128 565 calibration dated 26/12/2011
- /43/ Certificate #02/04-1499 on power meter Euro-Alpha EA05RAL-P4B-4 #01 128 713 calibration dated 26/12/2011
- /44/ Certificate #02/04-70 on power meter Euro-Alpha EA05RAL-P4B-4 #01 128 626 calibration dated 16/01/2012
- /45/ Certificate #02/04-1120 on power meter Euro-Alpha EA05RALX-P4B-4 #01 128 554 calibration dated 26/12/2011
- /46/ Certificate #02/04-1068 on power meter Euro-Alpha EA05RAL-P4B-4 Nº01 073 849 calibration dated 22/09/2011
- /47/ Certificate #02/04-1017 on power meter Euro-Alpha EA05RAL-P4B-4 #01 128 527 calibration dated 12/09/2011
- /48/ Certificate #02/04-561 on power meter Euro-Alpha EA05RAL-P4B-4 #01 088 042 від 19/05/2011
- /49/ Certificate #02/04-201 on power meter Euro-Alpha EA05RAL-P4B-4 #01 096 885 від 24/02/2011
- /50/ Agreement #13/2143-1221189/2010 dated 21/12/2010 on providing metrological service between Donetsk Science-production center on standardization and metrology and Service-Invest LLC
- /51/ Passport and calibration certificate on power meter CE6805V #1103040
- /52/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for December 2012
- /53/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for November 2012
- /54/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for October 2012
- /55/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for September 2012
- /56/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for August 2012
- /57/ Structure of balance and technological losses of electric energy from power

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transmitting in "Service-Invest" LLC grids with accounting of grid expansion for July 2012

- /58/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for June 2012
- /59/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for May 2012
- /60/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for April 2012
- /61/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for March 2012
- /62/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for February 2012
- /63/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for January 2012
- /64/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for December 2011
- /65/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for December 2011
- /66/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for November 2011
- /67/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for October 2011
- /68/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for September 2011
- /69/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for August 2011
- /70/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for July 2011
- /71/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for June 2011
- /72/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for May 2011

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- /73/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for April 2011
- /74/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for March 2011
- /75/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for February 2011
- /76/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for January 2011
- /77/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for December 2010
- /78/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for November 2010
- /79/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for October 2010
- /80/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for September 2010
- /81/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for August 2010
- /82/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for July 2010
- /83/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for June 2010
- /84/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for May 2010
- /85/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for April 2010
- /86/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for March 2010
- /87/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for February 2010
- /88/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for

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January 2010

- /89/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for December 2009
- /90/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for November 2009
- /91/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for October 2009
- /92/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for September 2009
- /93/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for August 2009
- /94/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for July 2009
- /95/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for June 2009
- /96/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for May 2009
- /97/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for April 2009
- /98/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for March 2009
- /99/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for February 2009
- /100/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for January 2009
- /101/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for December 2008
- /102/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for November 2008
- /103/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for October 2008
- /104/ Structure of balance and technological losses of electric energy from power

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transmitting in "Service-Invest" LLC grids with accounting of grid expansion for September 2008

- /105/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for August 2008
- /106/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for July 2008
- /107/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for June 2008
- /108/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for May 2004
- /109/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for April 2008
- /110/ Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for March 2008
- /111, Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for February 2008
- /112 Structure of balance and technological losses of electric energy from power transmitting in "Service-Invest" LLC grids with accounting of grid expansion for January 2008
- /113/ Bill #32/1008600 "Donetsk metal-rolling plant" JSC on electricity supply on March 2012
- /114/ Bill #32/1008600 "Donetsk metal-rolling plant" JSC on electricity supply on April 2012
- /115/ Transformer TDN-16000 (TR #1) of substation Pivnichna-110 losses calculation for March 2012
- /116/ Transformer TDN-16000 (TR #2) of substation Pivnichna-110 losses calculation for March 2012
- /117/ Transformer TSN-100 (TSN #1) of substation Pivnichna-110 losses calculation for March 2012
- /118/ Statement on power meters readings for JSC "Donetsk metal-rolling plant" December 2011
- /119/ Bill #32/10026017 for electric energy consumed by Stock Company Production Association "KONTI" March 2012
- /120/ Advanced bill #32/10026017/Av "Konti" JSC on electricity consume on May 2012
- /121/ Planned bill #32/10026017/p "Konti" JSC on electricity consumed on March 2012
- /122/ Agreement # 1 0026 017 dated 03/10/2008 on electric energy supply between Service-Invest LLC and "KONTI" JSC
- /123/ List of consumers power metering equipment and JSC "Konti" electricity

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consumed calculation scheme

- /124/ List of consumers power metering equipment and JSC "Donetsk metal-rolling plant" electricity consumed calculation scheme
- /125/ List of consumers power metering equipment and JSC "Nord" electricity consumed calculation scheme
- /126/ List of consumers power metering equipment and JSC "Nord" electricity consumed calculation scheme
- /127/ Planned bill #32/1 002 000/1p "Nord" JSC on electricity consumed on April 2012
- /128/ Advanced bill #32/1 002 000 "Nord" JSC on electricity consumed on March 2012
- /129/ Bill # 32/1 002 000 for reactive power flow on "Nord" JSC March 2012
- /130/ Pay calculation of reactive power flow on "Nord" JSC March 2012
- /131/ Description of energy consumption by metering points on bill #32/1 002 000 March 2012
- /132/ Annex to Agreement #32/1 002 000 Acceptance-transmittance act on measuring unit "KZK" Kramatorsk town, March 2012
- /133/ Annex to Agreement #32/1 002 000 Acceptance-transmittance act on measuring unit "Nord" JSC March 2012
- /134/ "Service-Invest" LLC commercial power meter planned calibration and replacement due to state calibration interval finishing schedule on 2012 year
- /135/ Transformer TDTN-40000/110U1 substation Donetska
- /136/ Out of service transformer, substation Donetska
- /137/ Transformer TDTN-40000/110U1 substation Donetska
- /138/ Siemens insulation switch with sulfur hexafluoride insulation
- /139/ Voltage transformers with sulfur hexafluoride insulation on substation Donetska
- /140/ Siemens insulation switch with sulfur hexafluoride insulation
- /141, Supporting polymeric insulator
- /142/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 073 858 connection DMZ #2
- /143/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 128 701 connection ShOMV-110
- /144/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 073 852 connection DMZ #1
- /145/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 074 806 connection T-3 110 KV
- /146/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 088 037 connection T-2 110 KV
- /147/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 073 871connection T-1 110 KV
- /148/ 110 KV accounting power meter board #24
- /149/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 043 300 connection Chaykino-1 110 KV
- /150/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 088 040 connection Chaykino-2 110 KV
- /151, Power meter Elster-Metronica EA05RAL-P4B-4 #01 073 854 connection

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Chaykino-3 110 KV

- /152/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 128 703
- /153/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 146 209
- /154/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 146 244
- /155/ 110 KV accounting power meter board #25
- /156/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 073 849 connection Uholschik 110 KV
- /157/ Power meter EA05RALX-P4B-4 #01 076 243 connection Kalmiuska-2 110 KV
- /158/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 082 978 connection Kalmiuska-1 110 KV
- /159, Power meter Elster-Metronica EA05RAL-P4B-4 #01 096 889
- /160/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 128 734
- /161/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 125 311
- /162/ 35 KV accounting power meter board #27
- /163/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 057 295 connection Transformer-1
- /164/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 043 303 connection Transformer-2
- /165/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 083 012 connection Transformer-3
- /166/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 043 304 connection Chulkovka-2
- /167/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 076 237 connection GKNS
- /168/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 073 884 connection Donetska-2 35KV
- /169/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 073 880 connection Donetska-1 35KV
- /170/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 082 995 connection KONTI 35KV
- /171, Power meter Лічильник Elster-Metronica EA05RALX-P4B-4 #01 076 226 connection Vidrodzhennya 35 KV
- /172/ 6 KV accounting power meter board #29
- /173/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 136 263 connection Transformer-1 6 KV
- /174/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 136 074 connection Transformer-2 6 KV
- /175/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 136 154 connection Transformer-3 6 KV
- /176/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 146 155 connection EMK 6 KV
- /177, Power meter Elster-Metronica EA05RAL-P4B-4 #01 125 306 connection Orbita-2 6 KV
- /178/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 125 368 connection Orbita-1 6 KV
- /179/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 128 565 connection RP-22 #2 6 KV

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- /180/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 096 807 connection RP-22 #1 6 KV
- /181/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 125 353 connection TP-2008 6 KV
- /182/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 125 400 connection RP-11 6 KV
- /183/ Power meter EA05RALX-P4B-4 # 01 096 857 connection RP-22 #2 6 KV
- /184/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 128 629 connection RP-22 #3 6 KV
- /185/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 128 645 connection TSN #3 6 KV
- /186/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 096 803 connection ZIM 6 KV
- /187/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 096 907 connection TP-5770 #1 6 KV
- /188/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 146 139 connection LKU 6 KV
- /189/ Sulfur hexafluoride leakage detector
- /190/ Power meter Elster-Metronica EA05RALX-P4B-4 № 01 128 548 connection N. Mushketovo #1 6 KV
- /191/ Power meter Elster-Metronica EA05RALX-P4B-4 № 01 128 546 connection N. Mushketovo #2 6 KV
- /192/ Power meter Elster-Metronica EA05RAL-P4B-4 № 01 125 357 connection connection TTU-24 #2 6 KV
- /193/ Power meter Elster-Metronica EA05RAL-P4B-4 № 01 125 349 connection TTU-24 #1 6 KV
- /194/ Power meter Elster-Metronica EA05RAL-P4B-4 № 01 125 373 connection STP-18 #1 6 KV
- /195/ Power meter Elster-Metronica EA05RAL-P4B-4 № 01 096 869 connection STP-18 #2 6 KV
- /196/ Transmitting line tower with old porcelain insulators
- /197/ New insulators
- /198/ Transformer #3 substation Vidrodzhennya
- /199/ Transformer #1 substation Vidrodzhennya
- /200/ Transformer #2 substation Vidrodzhennya
- /201/ Disconnecting switch 6 KV on new polymeric supporting insulators
- /202/ Voltage transformers
- /203/ SF6 breaker 110 KV transmitting line Smolyanka-DMZ
- /204/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 096 769
- /205/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 083 010 connection Khimzavod #4 6 KV
- /206/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 082 980 connection Khimzavod #2 6 KV
- /207/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 125 525
- /208/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 128 711 connection Mahma #2 6 KV
- /209/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 136 153 connection

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Transformator#3 6 KV

- /210/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 128 720
- /211/ Power meter EA05RAL-P4B-4 #01 128 713
- /212/ Power meter EA05RAL-P4B-4 #01 128 582 connection RP #1 6 KV
- /213/ Power meter EA05RAL-P4B-4 #01 096 767
- /214/ Power meter EA05RAL-P4B-4 #01 128 524
- /215/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 088 033 connection Khimzavod #3 6 KV
- /216/ Power meter EA05RAL-P4B-4 #01 128 724 connection RP #2 6 KV
- /217/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 088 038connection Khimzavod #5-6 6 KV
- /218/ Power meter Elster-Metronica EA05RAL-P4B-4 #01 125 335 connection TP5421 bus#4 6 KV
- /219/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 096 773 connection TP#3 6 KV
- /220/ Power meter connection EA05RAL-P4B-4 #01 125 356 Mahma #1 6 KV
- /221, Power meter Elster-Metronica EA05RALX-P4B-4 #01 088 042 connection Khimzavod #6 6 KV
- /222/ 35 KV accounting power meter board #2
- /223/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 088 03 connection Shakhta-29 35 KV
- /224/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 076 227 connection Shakhta-17 35 KV
- /225/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 076 227 connection Smolyanka
- /226/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 076 238 connection Transformer-3 35 KV
- /227/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 076 216 connection Transformer-2 35 KV
- /228/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 136 2... connection Donetska 35 KV
- /229/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 136 270 connection KONTI 35 KV
- /230/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 088 036 connection Transformer-1 35 KV
- /231, Power meter Elster-Metronica EA05RALX-P4B-4 #01 096 910 connection Transformer-2 6 KV
- /232/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 096 841 connection Transformer-1 6 KV
- /233/ Power meter Elster-Metronica EA05RALX-P4B-4 #01 096 861 connection Smolyanka-Metalurhichna 110 KV
- /234/ Power meter Elster-Metronica A1805RALQ-P4GB-DW-4 #01 186 368 connection Smolyanka-DMZ 110 KV
- /235/ 6 KV input buses control box #7
- /236/ Power meter Elster-Metronica A1805RALQ-P4GB-DW-4 #01 230 866
- /237/ Power meter Elster-Metronica A1805RALQ-P4GB-DW-4 #01 230 868
- /238/ Power meter Elster-Metronica A1805RALQ-P4GB-DW-4 #01 230 869

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- /239, Power meter Elster-Metronica A1805RALQ-P4GB-DW-4 #01 230 870
- /240/ Power meter Elster-Metronica A1805RALQ-P4GB-DW-4 #01 223 423 Rezerv
- /241/ Power meter Elster-Metronica A1805RALQ-P4GB-DW-4 #01 223 443 Rezerv
- /242/ Power meter Elster-Metronica A1805RALQ-P4GB-DW-4 #05 016 184 connection TSN-2
- /243/ Power meter Elster-Metronica A1805RALQ-P4GB-DW-4 #01 223 424 Rezerv
- /244/ Power meter Elster-Metronica A1805RALQ-P4GB-DW-4 #01 223 415 Rezerv
- /245/ Power meter Elster-Metronica A1805RALQ-P4GB-DW-4 #01 223 426 Rezerv
- /246/ Power meter Elster-Metronica A1805RALQ-P4GB-DW-4 #01 223 419 Rezerv
- /247, Power meter Elster-Metronica A1805RALQ-P4GB-DW-4 #01 223 434 Rezerv
- /248/ Power meter Elster-Metronica A1805RALQ-P4GB-DW-4 #01 223 440 Rezerv
- /249/ Power meter Elster-Metronica A1805RALQ-P4GB-DW-4 #05 016 185 connection TSN-1
- /250/ Power meter Elster-Metronica A1805RALQ-P4GB-DW-4 #01 223 432 Rezerv
- /251/ Power meter Elster-Metronica A1805RALQ-P4GB-DW-4 #01 223 433 Rezerv
- /252/ Power meter Elster-Metronica A1805RALQ-P4GB-DW-4 #01 223 442 Rezerv
- /253/ SF6 switch, substation Aeroport
- /254/ SF6 insulated switch house 110/35/6 KV, substation Airport
- /255/ SF6 leakage detectors
- /256/ SF6 insulated switch house 110/35/6 KV control box, line Makiivka-Poshtoviy 110 KV
- /257, Commutation accounting meters on SF6 insulated switchhouse 110/35/6 KV
- /258/ 110 KV bus input in SF6 insulation
- /259/ 6 KV buses
- /260/ Oil insulated transformer 110/6 KV, substation Airport

#### Persons interviewed:

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

- /1/ Iryna Protopova acting general director
- /2/
- /3/ Natalya Ursalenko head of Licensees Relations and Commercial Operations department
- /4/ Natalya Tsyhankova Head of Electric Energy Sailing and realization department
- /5/ Olga Koroleva head of Environmental Safety department



VERIFICATION REPORT: RECONSTRUCTION OF THE ELECTRICITY GRID OF THE "SERVICE-INVEST" LLC.

# APPENDIX A: VERIFICATION PROTOCOL

#### **VERIFICATION PROTOCOL**

#### Check list for verification, according to the JOINT IMPLEMENTATION DETERMINATION AND VERIFICATION MANUAL (Version 01)

DVM Paragrap	Check Item	Initial finding	Draft Conclusion	Final
h h			Conclusion	Conclusion
Project app	provals by Parties involved			
90	Has the DFPs of at least one Party involved, other than the host Party, issued a written project approval when submitting the first verification report to the secretariat for publication in accordance with paragraph 38 of the JI guidelines, at the latest?	<u>CAR01</u> Please provide written approvals from both Parties Involved. Also, please clearly indicate Party-buyer of ERUs	CAR01	OK
91	Are all the written project approvals by Parties involved unconditional?	See CAR01	-	-
Project imp	plementation			
92	Has the project been implemented in accordance with the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	<u>CAR02</u> Please use the latest version of "Tool for the demonstration and assessment of additionality"	CAR02	ОК
93	What is the status of operation of the project during the monitoring period?	The project is in operation during the monitoring period <u><i>CAR03</i></u> Please provide data on project measures implemented during 2011-2012 years. Also please clearly indicate length of crediting period	CAR03	OK
Complianc	e with monitoring plan			

VERIFICATION	ON REPORT: RECONSTRUCTION OF THE ELECT	TRICITY GRID OF THE "SERVICE-INVEST" LLC.		BUREAU
DVM Paragrap h	Check Item	Initial finding	Draft Conclusion	Final Conclusion
94	Did the monitoring occur in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	The monitoring was provided in accordance with the monitoring plan included in the PDD regarded which the determination was deemed final and is listed at UNFCCC web site	ОК	ОК
95 (a)	For calculating the emission reductions or enhancements of net removals, were key factors, e.g. those listed in 23 (b) (i)-(vii) above, influencing the baseline emissions or net removals and the activity level of the project and the emissions or removals as well as risks associated with the project taken into account, as appropriate?	The key factors listed in 23 (b) (i)-(vii) influencing the baseline emissions and activity level of the project are taken into account in appropriate way	OK	ОК
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?	The data sources, such as state reporting form 1-BTVE used for calculating emission reductions are clearly identified, reliable and transparent	ОК	ОК
95 (c)	Are emission factors, including default emission factors, if used for calculating the emission reductions or enhancements of net removals, selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice?	<u>CAR04</u> Please correct reference on table B.2 in the description of carbon emission factor in the table B.3	CAR04	ОК
95 (d)	Is the calculation of emission reductions or enhancements of net removals based on conservative assumptions and the most plausible scenarios in a transparent manner?	The calculation of emission reductions are based on conservative assumptions and most plausible future scenarios in a transparent manner	OK	ОК
	to JI SSC projects only_Not applicable			

VERIFICATION REPORT: RECONSTRUCTION OF THE ELECTRICITY GRID OF THE "SERVICE-INVEST" LLC.					
DVM Paragrap h	Check Item	Initial finding	Draft Conclusion	Final Conclusion	
Applicable Revision o	to bundled JI SSC projects only_Not appli f monitoring plan	cable			
Applicable	only if monitoring plan is revised by project	ct participant			
99 (a)	Did the project participants provide an appropriate justification for the proposed revision?	The monitoring plan doesn't revised during the monitoring period	OK	ОК	
99 (b)	Does the proposed revision improve the accuracy and/or applicability of information collected compared to the original monitoring plan without changing conformity with the relevant rules and regulations for the establishment of monitoring plans?	Not applicable	OK	ОК	
Data mana	gement				
101 (a)	Is the implementation of data collection procedures in accordance with the monitoring plan, including the quality control and quality assurance procedures?	The implementation of data collection procedures is in accordance with the monitoring plan contained in the determined PDD	ОК	OK	
101 (b)	Is the function of the monitoring equipment, including its calibration status, in order?	The function of the monitoring equipment, including its calibration status is in order <u>CAR05</u> Please add correct data on project electricity meters <u>CAR06</u> Please add correct name of state enterprise that provides calibration of Service-Invest LLC automatic measuring system	CAR05 CAR06	OK OK	
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	The evidences and records are used in a transparent manner	OK	OK	



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DVM Paragrap h	Check Item	Initial finding	Draft Conclusion	Final Conclusion			
101 (d)	Is the data collection and management system for the project in accordance with the monitoring plan?	<u>CAR07</u> Please clearly describe data collection and management system for the Project <u>CAR08</u> Please note that data monitored and required for ERUs calculation will be kept two years after the last ERUs transfer and provide reference on relevant order issued by Service-Invest LLC	CAR07 CAR08	OK OK			
Verification	Verification regarding programmes of activities (additional elements for assessment)_Not applicable						
Applicable	to sample-based approach only_Not appli	cable					

#### Table 2 Resolution of Corrective Action and Clarification Requests

Draft report clarification and corrective action requests by verification team	Ref. to checklist question in table 1	Summary response	of	project	participant	Verification team conclusion
<u>CAR01</u> Please provide written approvals from both Parties Involved. Also, please clearly indicate Party-buyer of ERUs	90	The project Netherlands were indicate of Approval	writt as ed in was p	en approv Party-Buye the sectior rovided to <i>P</i>	als and the er of ERUs A.2. Letters	The issue is closed
<u>CAR02</u> Please use the latest version of "Tool for the demonstration and assessment of additionality"	92	The "Tool assessment was used	for t of ad	he demon ditionality"	stration and version 7.0.0	The issue is closed



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<u>CAR03</u> Please provide data on project measures implemented during 2011-2012 years. Also please clearly indicate length of crediting period	93	The list of implemented project measures was provided in the section A.3 of the MR. Length of crediting period was from 01/01/2008 till 30/11/2012	The issue is closed	VERITAS	
<u>CAR04</u> Please correct reference on table B.2 in the description of carbon emission factor in the table B.3	95(c)	The reference was corrected	The issue is closed		
<u>CAR05</u> Please add correct data on project electricity meters	101(b)	The data on project power meters was added in the section B.1.1	The issue is closed		
<u>CAR06</u> Please add correct name of state enterprise that provides calibration of Service-Invest LLC automatic measuring system	101(b)	The calibration of project measuring devices was provided by State Enerprise "Donetsk Scientific Production Center for the Standardization, Metrology and Certification", "Dnipropetrovsk Scientific Production Center for the Standardization, Metrology and Certification" and the Manufacturer	The issue is closed		
<u>CAR07</u> Please clearly describe data collection and management system for the Project	101(d)	The scheme of project data flow with relevant clarifications was added in the head of the section B	The issue is closed		
<u>CAR08</u> Please note that data monitored and required for ERUs calculation will be kept two years after the last ERUs transfer and provide reference on relevant order issued by Service-Invest LLC	101(d)	The reference on relevant order was provided in the section B.2.2	The issue is closed		