



# VERIFICATION REPORT

JSC “FORTUM”

## VERIFICATION OF THE “TECHNICAL RE-EQUIPMENT OF CHELYABINSK CHPP-3 WITH PUTTING INTO OPERATION OF A COMBINED-CYCLE GAS PLANT” (19.05.2011 – 30.06.2012)

REPORT No. RUSSIA-VER/0332/2012  
REVISION NO. 01

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Report No: RUSSIA-ver/0332/2012 rev.01

## VERIFICATION REPORT

“TECHNICAL RE-EQUIPMENT OF CHELYABINSK CHPP-3 WITH PUTTING INTO OPERATION OF A COMBINED-CYCLE GAS PLANT”

Date of first issue: 05/10/2012	Organizational unit: Bureau Veritas Certification Holding SAS
Client: Carbon Trade & Finance SICAR S.A.	Client ref.: Ingo Ramming

Summary:  
Bureau Veritas Certification has made periodic verification of the “Technical re-equipment of Chelyabinsk CHPP-3 with putting into operation of a combined-cycle gas plant” project of JSC “Fortum” located in Chelyabinsk, Russian Federation 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 project has been approved by the Parties involved Russian Federation (Host Party), Finland (the Party involved other than Host Party).

The verification scope is defined as a periodic independent review and ex post determination by the Accredited Entity of the monitored reductions in GHG emissions during defined verification period, 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) the issuance of the final verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

The first output of the verification process is the Verification Protocol presented in Appendix A.

In summary, Bureau Veritas Certification confirms that the project is implemented as per determined PDD. 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. The GHG emission reduction is calculated without material misstatements, and the ERUs issued totalize 335 793 tCO<sub>2</sub>e for the 1st monitoring period from May 19th 2011 to June 30th 2012.

Our opinion relates to the project’s GHG emissions and resulting GHG emission reductions reported and related to the approved project baseline and monitoring, and its associated documents.

Report No.: RUSSIA-ver/0332/2012	Subject Group: JI	<input checked="" type="checkbox"/> No distribution without permission from the Client or responsible organizational unit  <input type="checkbox"/> Limited distribution  <input type="checkbox"/> Unrestricted distribution
Project title: Technical re-equipment of Chelyabinsk CHPP-3 with putting into operation of a combined-cycle gas plant		
Work carried out by: Daniil Ukhanov – Climate Change Lead Verifier		
Work reviewed by: Vladimir Lukin – Internal Technical Reviewer		
Work approved by: Leonid Yaskin – Operational Manager		
Date of this revision: 05/10/2012	Rev. No.: 01	Number of pages: 19

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## 1 INTRODUCTION

Carbon Trade & Finance SICAR S.A. has commissioned Bureau Veritas Certification to verify the emissions reductions of JI project "Technical re-equipment of Chelyabinsk CHPP-3 with putting into operation of a combined-cycle gas plant").

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 and monitoring plan 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 and/or corrective 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:

Daniil Ukhanov  
Bureau Veritas Certification, Climate Change Lead Verifier

This verification report was reviewed by:

Vladimir Lukin  
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 CTF Consulting (subsidiary of Carbon Trade & Finance SICAR S.A.) 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, DVM 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 #1.0 dd. 10/08/2012; #1.1 dd. 24/09/2012 /1.1/ and the project as described in the determined PDD /1.2/.

### 2.2 Follow-up Interviews

Bureau Veritas Certification performed series of follow-up off-site interviews with CTF Consulting representative in the period from 15/08/2012 to 15/09/2012 to confirm both selected information received by the verifier as supporting documentation to the Monitoring Report and obtained through the on-site interviews and assessment during the determination stage, performed by Bureau Veritas Certification, and to resolve issues identified in the present document review. Please refer to

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the list of interviewees in References. The main topics of the interviews are summarized in Table 1.

**Table 1. Interview topics related to verification**

Interviewed organization	Date	Interview and/or inspected topics
CTF Consulting on behalf of JSC “Fortum”	from 15/08/2012 to 15/09/2012	<ul style="list-style-type: none"> <li>➤ Status of project equipment</li> <li>➤ Revisions of Monitoring plan</li> <li>➤ Collected data</li> <li>➤ Passports and evidence of calibration of measuring equipment</li> <li>➤ Data logs (samples)</li> <li>➤ Data reports (samples)</li> <li>➤ QC and QA procedures</li> <li>➤ Use of calculation tool</li> <li>➤ Emission calculations</li> <li>➤ QC and QA procedures</li> <li>➤ Monitoring report</li> </ul>
CONSULTANT	N/A	N/A
(Local Stakeholder)	N/A	N/A

### 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;



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(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.

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

3 CARs and 4 CLs were reported in this verification.

### **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 follow up interviews are described in the Verification Protocol in Appendix A.

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

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

Not applicable.

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

The project was approved on 12 March 2012 by the Host Party – Russian Federation /1.5/ and by Finland - the Party involved other than the Host Party on 23/05/2012 /1.6/. The project approvals by the Parties involved were made available to AIE and their authenticity was positively verified.

Outstanding issues related to Project approval by Parties involved (90-91), PP's response and the AIE conclusion are summarized in Appendix A (refer to CL 01):

CL 01 – the Letter of Approval by the Parties.

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

The implementation status of the project is as described in Appendix A paragraph 92. The project started generation of emission reductions later than the start of crediting period on 19/01/2011 as confirmed by measuring data on natural gas volume and electric energy generation.

The project has been implemented in accordance with PDD in main /1.2/ which was positively determined by the AIE (BVC) /1.3/. It was implemented later than 01/01/2011 as it is stated in PDD. This case is

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described in Section 3.5 of the report. To confirm the implementation date commissioning acts were made available to the AIE.

Primary data made available to the AIE evidence that the project GT unit operated stable in the reported monitoring period from 19 May 2011 to 30 June 2012.

Outstanding issues related to Project implementation (92-93), PP's response and the AIE conclusion are summarized in Appendix A (refer to CL 02):

CL 02 – the supporting documents for the project implementation.

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

The Monitoring System is in place and operational. Monitoring of GHG emission reductions occurred as per the determined Monitoring Plan with the revisions addressed in Section 3.5.

The JI specific approach regarding monitoring applied in the determined PDD was not revised. The set of data collected to monitor emission reduction did not change.

For calculating the emission reductions, key factors, as those listed in 23 (b) (i)-(vi) DVM, 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 (refer to Appendix A para 95 (a)).

Key parameters subject to monitoring included natural gas consumption, net calorific value of natural gas, output of heat and electric energy (all measured). Default and fixed data used were combined CO<sub>2</sub> emission factor of the Urals and Mid Volga electricity grids, efficiency of new gas fired boilers.

Data sources used for calculating emission reductions, as provided in Appendix A para 95 (b), are clearly identified, reliable and transparent.

The calculation of emission reductions is based on conservative assumptions and the most plausible scenario and is conducted in a transparent manner as described in Appendix A paragraph 95 (d). The calculation excel spreadsheet was made available to the AIE.

Outstanding issue related to Compliance of the monitoring plan with the monitoring methodology (94-98)), PP's response and the AIE conclusion are summarized in Appendix A (refer to CAR 01):

CAR 01 – the justification of initial values.

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### 3.5 Revision of monitoring plan (99-100)

The Monitoring Report indicates the revision of previously determined assignment of responsibilities for the (1) the actual date of crediting period start, and (2) calculation of fuel consumption.

The date of actual start of project emission reductions calculation was shifted due to the delay in the technical implementation of the project construction and assembly works.

The change in the natural gas consumption monitoring refers to the fact that it has not been monitored in 2011 in natural units, instead it has been monitored in the values of specific consumption of equivalent fuel as the statistical form 3-tech contains the value of specific consumption of equivalent fuel only. Hence, the formulae for monthly calculation of the natural gas consumption in 2011 was changed.

Outstanding issues related to Revision of monitoring plan (99-100), PP's response and the AIE conclusion are summarized in Appendix A (refer to CAR 02 and CL 03):

CAR 02 was raised to justify that the revision of monitoring plan doesn't influence the accuracy and/or applicability of information collected compared to the original monitoring plan;

CL 03 concerns the provided statistical forms 3-tech.

### 3.6 Data management (100-101)

The data and their sources, provided in monitoring report, are clearly identified, reliable and transparent. The list of measured parameters is indicated below:

- Consumption of natural gas by power-generating unit #3, thousands  $m^3$ ;
- Net calorific value of natural gas,  $ccal/m^3$ ;
- Output of electricity to external consumers from power generating unit #3 (CCGT), ths. kWh;
- Output of heat to external consumers from power-generating unit #3 (CCGT), Gcal.

Implementation of the quality control and quality assurance procedures is as specified in Section D.2 of PDD.

The internal quality system at OJSC Fortum is functioning in accordance with the national standards and regulations in force. The plant is equipped with all required instrumentation and field devices for the process interlocking, measurement and protection. The instrumentation and field



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devices and all electrical equipment in the field necessary for accurate analogue and digital measuring required for the control and supervision.

Calibration of the metering devices is made in accordance with the calibration schedule. It is approved every year. Metering devices are calibrated by the independent entity FGU "Mendeleevskiy CSM", FGU "Penzenskiy CSM".

The function of the monitoring equipment, including its calibration status, is in order.

The evidence and records used for the monitoring are maintained in a traceable manner.

The data collection and management system for the project is in accordance with the monitoring plan.

Outstanding issues related to Data Management (101), PP's response and the AIE conclusion are summarized in Appendix A (refer to CL 04 and CAR 03):

- CL 04 was raised to request calibration certificates the program-technical complex "Ovation" employed in the monitoring;
- CAR 03 was raised to request the validity of results obtained from SAIIM CAEP system.

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

Not applicable.

## **4 VERIFICATION OPINION**

Bureau Veritas Certification has performed initial and 1<sup>st</sup> periodic verification of the "Technical re-equipment of Chelyabinsk CHPP-3 with putting into operation of a combined-cycle gas plant" JI Project, which applies the 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 project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) the issuance of the final verification report and opinion.

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Management of OJSC "Fortum" 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 Plan. 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 dated 24/09/2012 for the reporting period as indicated below. Bureau Veritas Certification confirms that the project is implemented as per determined PDD with reasonable changes. 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. The project has received approvals by the Parties involved.

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 determined project baseline and monitoring plan, and associated documents. Based on the information we have seen and evaluated, we confirm, with a reasonable level of assurance, the following statement:

Reporting period: From 19/05/2011 to 31/12/2011

Baseline emissions	:	612 799	tCO <sub>2</sub> e
Project emissions	:	432 713	tCO <sub>2</sub> e
Emission Reductions	:	180 086	tCO <sub>2</sub> e

Reporting period: From 01/01/2012 to 30/06/2012

Baseline emissions	:	504 970	tCO <sub>2</sub> e
Project emissions	:	349 263	tCO <sub>2</sub> e
Emission Reductions	:	155 707	tCO <sub>2</sub> e

Total reporting period: From 19/05/2011 to 30/06/2012

Baseline emissions	:	1 117 769	tCO <sub>2</sub> e
Project emissions	:	781 976	tCO <sub>2</sub> e
Emission Reductions	:	335 793	tCO <sub>2</sub> e

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## 5 REFERENCES

### Category 1 Documents:

Documents provided by type the name of the company that relates directly to the GHG components of the project.

- /1.1/ Monitoring Report “Technical re-equipment of Chelyabinsk CHPP-3 with putting into operation of a combined-cycle gas plant”  
v. 1.0 dd. 10/08/2012  
v. 1.1 dd. 24/09/2012
- /1.2/ PDD “Technical re-equipment of Chelyabinsk CHPP-3 with putting into operation of a combined-cycle gas plant”. Determined Version 7. Dated 25/11/2010.
- /1.3/ BVC Determination Report on JI “Technical re-equipment of Chelyabinsk CHPP-3 with putting into operation of a combined-cycle gas plant”. Rev.01 dated 30/04/2011.
- /1.4/ Monitoring Report “Technical re-equipment of Chelyabinsk CHPP-3 with putting into operation of a combined-cycle gas plant”.  
Monitoring period 19.05.2011 – 31.12.2011.  
v.1.1 dated 24/09/2012 Supporting documentation: Excel spreadsheet with estimation of emission reduction.
- /1.5/ Host Country LoA Resolution #112 dated 12 March 2011 “On approval of the project by the Host Country”
- /1.6/ LoA from Finland’s Ministry of the Environment granted on 23/05/2012
- /1.7/ Guidance on criteria for baseline setting and monitoring (version 03)  
[http://ji.unfccc.int/Ref/Documents/Baseline\\_setting\\_and\\_monitoring.pdf](http://ji.unfccc.int/Ref/Documents/Baseline_setting_and_monitoring.pdf)

### Category 2 Documents:

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

Documents obtained in the course of Initial and 1<sup>st</sup> verification

- /2.1/ Natural gas protocols for May – December 2011 and January – June 2012 for Chelyabinsk CHPP-3;
- /2.2/ Statistical forms 3-tech for May – December 2011;
- /2.3/ Results of technical parameters input in SAP forms January – June 2012;
- /2.4/ Calibration certificates of pressure transducers, thermometers, diaphragms on Chelyabinsk CHPP-3 unit #3;
- /2.5/ Certificates on verification of automatic control system of electric



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- energy generation control on Chelyabinsk CHPP-3 unit#2 and unit#3;
- /2.6/ Act of measuring tool replacement (with S/N 01208934 and S/N 01229880) dd. 13/10/2011;
- /2.7/ Certificate on attestation of measuring methodology #01.00230/6-2011 in accordance with GOST R 8.563;
- /2.8/ Certificate of Rostekhnadzor on approval of SAIIM CAEP unit #2 and unit #3 RU.E.34.033.A №42918;
- /2.9/ Passports on electrical metering gears placed on Chelyabinsk CHPP-3 unit #3;
- /2.10/ Act of implementation approval by JSC Fortum of unit #3 on Chelyabinskaya CHPP-3;
- /2.11/ Rostekhnadzor approval of Chelyabinsk CHPP-3 unit#3 dd. 17/05/2011;
- /2.12/ Construction works schedule of unit#3;
- /2.13/ Permission on implementation of unit #3 on Chelyabinsk CHPP-3 dd. 19/05/2011;
- /2.14/ Permission on air pollution for the period 12/12/2007 to 12/12/2012;
- /2.15/ Programme of industrial control of air emissions for Chelyabinsk CHPP-3;
- /2.16/ Programme of industrial control of water discharge for Chelyabinsk CHPP-3;

**Persons interviewed**

- /3.1/ K. Myachin – CTF Consulting, Climate change project manager.

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## APPENDIX A

## VERIFICATION PROTOCOL

Table 1

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

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
<b>Project approvals by Parties involved</b>				
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?	Monitoring Report Version 1.0 dated 10/08/2012 /1/ (thereafter referred MR) for the JI project "Technical re-equipment of Chelyabinsk CHPP-3 with putting into operation of a combined-cycle gas plant" contains information about issuance of project approvals by the Host Party and by the Party involved other than the Host Party: The Host Party approval – the order of Ministry of economic development #112 received on March 12, 2012 and Letter of Approval from the Party involved other than the Host Party (Finland) YM4/44/2012 received on May 23, 2012. <b>CL 01.</b> Please provide the Letters of Approval from the Parties to the AIE.	CL 01	OK
91	Are all the written project approvals by Parties involved unconditional?	Yes, all the written project approvals by Parties involved are unconditional.		OK
<b>Project implementation</b>				
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?	Implementation of the project mainly corresponds to the implementation schedule presented in the PDD v.7 dd. 25/11/2010. The date of CHPP commissioning has been changed. The crediting period start was revised from 01/01/2011 to 01/05/2012. <b>CL 02.</b> Please provide supporting documents that justify the implementation of new generating unit on 01/05/2012. Take	CL 02	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		note: the provided permission on CHPP-3 exploitation dated 19/05/2012.		
93	What is the status of operation of the project during the monitoring period?	Conclusion is pending a response to CL 02.		OK
<b>Compliance with monitoring plan</b>				
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 System is in place and operational. Monitoring of GHG emission reductions mainly occurred in accordance with the determined Monitoring Plan included in PDD. Conclusion is pending a response to CL 03 and CAR 02.		OK
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?	For calculating the emission reductions, the key factors listed in 23 (b) (i)-(vi) DVM, 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 follows (refer to Determination report performed by BVC).		OK
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?	All the data sources used for calculating emission reductions are clearly identified, reliable and transparent. They are listed and classified in the Table B.2.1 of MR.  Calculation of emission reduction was carried out on the excel spreadsheet /4/. The results are summarised in the MR Section D.4.  <b>CAR 01.</b> Please justify the values of net output of electricity from bars, specific consumption of equivalent fuel on electricity output, net output of heat energy, specific consumption of equivalent fuel on heat output, net calorific value of natural gas indicated in calculation spreadsheet and in Section D.4 of MR.	CAR 01	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
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?	Emission factor for natural gas combustion was taken from IPCC 2006 V.2 Ch.2 (corrected chapter as of April 2007). This factor was assumed constant till 2012. Combined CO2 emission factor for grid electricity was used in accordance with determined PDD.		OK
95 (d)	Is the calculation of emission reductions or enhancements of net removals based on conservative assumptions and the most plausible scenario in a transparent manner?	The conservative assumptions and the most plausible scenario were taken into account in the calculation of emission reductions as it was determined in PDD (please refer to DR/3/).		OK
<b>Applicable to JI SSC projects only_Paragraph 96_Not applicable</b>				
<b>Applicable to bundled JI SSC projects only_Paragraphs 97(a) – 98_Not applicable</b>				
<b>Revision of monitoring plan</b>				
<b>Applicable only if monitoring plan is revised by project participant</b>				
99 (a)	Did the project participants provide an appropriate justification for the proposed revision?	<p>The starting date of the crediting period has been changed from 01/01/2011 to 01/05/2012 due to the delay in technical implementation of the project during 2011. Refer to CL 02.</p> <p>Another revision of the monitoring plan is in the formula of CO2 emissions from generation of electrical and heat energy (PE<sub>y</sub>) calculation. The direct monitoring of fuel consumption is replaced by the indirect calculation of fuel consumption based on the specific fuel consumption values for electric and heat energy generation.</p> <p><b>CL 03.</b> Please clarify how the values of specific fuel consumption for electricity and heat generation are obtained and monitored. Please take note: the calculation of these parameters shall be included in the calculation path of Section C; the provided 3-tech forms are not transparent (the cells do not contain references on formulae).</p>	CL 03	OK
99 (b)	Does the proposed revision improve the	<b>CAR 02.</b> Please justify that the revision of MR doesn't	CAR 02	OK

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DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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?	influence the accuracy and/or applicability of information collected compared to the original monitoring plan.		
<b>Data management</b>				
101 (a)	Is the implementation of data collection procedures in accordance with the monitoring plan, including the quality control and quality assurance procedures?	<p>The implementation of data collection procedures is in accordance with the determined monitoring plan and is an integral part of the operational routine at the Chelyabinsk CHPP-3 which is a part of OJSC “Fortum” including quality control and quality assurance procedures.</p> <p><b>CL 04.</b> Please provide to the AIE the documents that justify the calibration date of program-technical complex “Ovation” indicated in Table B.4.1.</p> <p><b>CAR 03.</b> Please justify the validity of SAIM CAEP of power generating units #2 and #3 of Chelyabinsk CHPP-3 measurement results before the date 16/06/2011.</p>	CL 04 CAR 03	OK OK
101 (b)	Is the function of the monitoring equipment, including its calibration status, is in order?	Conclusion is pending a response to CL 04 and CAR 03.		OK
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	Conclusion is pending a response to CL 03 – CL 04, CAR 02 – CAR 03.		OK
101 (d)	Is the data collection and management system for the project in accordance with the monitoring plan?	The management system of the project is in accordance with the monitoring plan.		OK
<b>Verification regarding programs of activities (additional elements for assessment) Paragraphs 102 – 105 Not applicable</b>				
<b>Applicable to sample-based approach only Paragraphs 106 – 110 Not applicable</b>				

**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	Verification team conclusion
<b>CAR 01.</b> Please justify the values of net output of electricity from bars, specific consumption of equivalent fuel on electricity output, net output of heat energy, specific consumption of equivalent fuel on heat output, net calorific value of natural gas indicated in calculation spreadsheet and in Section D.4 of MR.	95 (b)	<p>The validity of the values in electronic reporting forms used for compilation of the calculation spreadsheet has been confirmed by OJSC "Fortum" by signing of each page of report by appropriate person.</p> <p>These documents have been provided to AIE.</p>	<p><u>Conclusion on Response 1</u></p> <p>CAR is closed based on review of documents.</p>
<b>CAR 02.</b> Please justify that the revision of MR doesn't influence the accuracy and/or applicability of information collected compared to the original monitoring plan.	99 (b)	<p>A reporting system described in section C of the Monitoring report, version 1.1 of 24/09/2012 has been accepted for a long time in the Russian energy sector. It is based on the initially measured value of fuel consumption by Chelyabinsk CHP-3 unit #3 (it uses only natural gas) separated by means of calculation to the consumption of equivalent fuel for electricity output and for heat output. Addition of fuel consumption per heat and electricity output gives the initial measured fuel consumption.</p> <p>Introduction of such approach for year 2011 is connected only to the specific of reporting for unit #3 in that year.</p> <p>Therefore revision of monitoring report does not influence the accuracy and/or applicability of information collected compared to the original monitoring plan.</p>	<p><u>Conclusion on Response 1</u></p> <p>CAR is closed based on appropriate corrections made to VR.</p>



<b>CAR 03.</b> Please justify the validity of SAIM CAEP of power generating units #2 and #3 of Chelyabinsk CHPP-3 measurement results before the date 16/06/2011.	101 (a)	According to the letter of Administrator of the trading system of wholesale electricity market to the OJSC "Fortum" by 29/09/2011 the SAIM CAEP of power generating units #2 and #3 of Chelyabinsk CHPP-3 has been classified by class "A" from 19/04/2011 and approved for the used at wholesale electricity market from that date.	<u>Conclusion on Response 1</u> CAR is closed based on review of documents.
<b>CL 01.</b> Please provide the Letters of Approval from the Parties to the AIE.	90	Requested documents have been provided to AIE.	<u>Conclusion on Response 1</u> CL is closed based on the review of documents.
<b>CL 02.</b> Please provide supporting documents that justify the implementation of new generating unit on 01/05/2012. Take note: the provided permission on CHPP-3 exploitation dated 19/05/2012.	92	Starting date of the monitoring period on the project has been changed to 19/05/2011 for the better correctness as this is a date of the issuance of Permission for start of the object's operation from administration of Chelyabinsk city	<u>Conclusion on Response 1</u> CL is closed based on appropriate corrections made to VR.

<b>CL 03.</b> Please clarify how the values of specific fuel consumption for electricity and heat generation are obtained and monitored. Please take note: the calculation of these parameters shall be included in the calculation path of Section C; the provided 3-tech forms are not transparent (the cells do not contain references on formulae).	99 (a)	<p>Values of specific fuel consumption for electricity and heat generation has been calculated by the specialists of Group of accounting (technical) according with “Methodological guidelines on preparation of the report of the power plant and joint-stock company of energy and electrification on heat efficiency of the equipment” - RD 34.08.552-95 approved by Ministry of fuel and energy of Russian Federation.</p> <p>The provided 3-tech forms indeed do not contain references on formulae as these are final reporting forms to be sent electronically or to be printed and signed. The validity of the values in the 3-tech forms has been confirmed by OJSC “Fortum” by signing of each page of report by appropriate person.</p> <p>Intermediate calculation for preparation of the 3-tech forms was done during the routine working process at the local computer of the specialist of Group of accounting and cannot be included in the calculation path of Section C as these files are not retained.</p>	<u>Conclusion on Response 1</u>  CL is closed based on due clarifications received.
<b>CL 04.</b> Please provide to the AIE the documents that justify the calibration date of program-technical complex “Ovation” indicated in Table B.4.1.	101 (a)	Requested documents have been provided to AIE.	<u>Conclusion on Response 1</u>  CL is closed based on review of documents.