



DETERMINATION REPORT

CARBON TRADE AND FINANCE

SICAR S.A.

DETERMINATION OF THE

ASSOCIATED PETROLEUM GAS

RECOVERY AT PRIOBSKOE OIL

FIELD OF "ROSNEFT"

REPORT No. RUSSIA-DET/0153/2011

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BUREAU VERITAS CERTIFICATION



Determination Report on JI project
Associated Petroleum Gas Recovery at Priobskoe Oil Field of "Rosneft"

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Summary:

Bureau Veritas Certification has made determination of the project "Associated Petroleum Gas Recovery at Priobskoe Oil Field of "Rosneft" located in Khanty-Mansiysk-Yugra Autonomous Okrug, 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 determination scope is defined as an independent and objective review of the project design document, the project's baseline study, monitoring plan and other relevant documents, and consisted of the following three phases: i) desk review of the project design and the baseline and monitoring plan; ii) follow-up on-site interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final determination report and opinion. The overall determination, from Contract Review to Determination Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

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

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

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Project title: Associated Petroleum Gas Recovery at Priobskoe Oil Field of "Rosneft"	
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Abbreviations

AIE	Accredited Independent Entity
APG	Associated Petroleum Gas
BVC	Bureau Veritas Certification
CAR	Corrective Action Request
CL	Clarification Request
CO ₂	Carbon Dioxide
CS	Compressor station
DDR	Draft Determination Report
DR	Document Review
EIA	Environmental Impact Assessment
ERU	Emission Reduction Unit
GHG	Greenhouse House Gas(es)
GPP	Gas Processing Plant
GTI	Gas Treatment Installation
GTPP	Gas Turbine Power Plant
IPCC	Intergovernmental Panel on Climate Change
IRR	Internal Rate of Return
JI	Joint Implementation
JISC	Joint Implementation Supervisory Committee
LoA	Letter of Approval
NG	Natural Gas
NPV	Net Present Value
OJSC	Open Joint Stock Company
PDD	Project Design Document
PP	Project Participant
RF	Russian Federation
tCO ₂ e	Tonnes CO ₂ equivalent
UNFCCC	United Nations Framework Convention on Climate Change

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1 INTRODUCTION

Carbon Trade & Finance SICAR S.A. (hereafter referred as CTF SICAR) has commissioned Bureau Veritas Certification to determine "Associated Petroleum Gas Recovery at Priobskoe Oil Field of "Rosneft" project (hereafter referred 'the project') located in Khanty-Mansiysk Ugra Autonomous Okrug, Russian Federation.

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

1.1 Objective

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

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

1.2 Scope

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

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

1.3 Determination team

The determination team consists of the following personnel:

Vladimir Lukin
Bureau Veritas Certification Team Leader, Climate Change Lead Verifier

Alexey Kulakov
Bureau Veritas Certification Specialist



This determination report was reviewed by:

George Klenov
Bureau Veritas Certification, Internal reviewer

Elena Mazlova
Bureau Veritas Certification Specialist

2 METHODOLOGY

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

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

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

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

2.1 Review of Documents

The original Project Design Document (PDD) v.1.1 dd. 18/07/2011 submitted by project developer CTF Consulting (subsidiary of Carbon Trade & Finance SICAR S.A.) for determination and additional background documents related to the project design and baseline, i.e. country Law, Guidelines for users of the joint implementation project design document form, Guidance on criteria for baseline setting and monitoring, Kyoto Protocol to be checked by an Accredited Independent Entity were reviewed and corrective action requests were reported.

To address Bureau Veritas Certification corrective action requests, CTF Consulting revised the original PDD and resubmitted it as v. 1.2 on 21/07/2011 followed by v.1.3 dd. 22/08/2011, and v. 1.4 dd. 25/08/2011.

The determination findings presented in this report relate to the project as described in the PDD versions 1.1, 1.2, 1.3, and 1.4.



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2.2 Follow-up Interviews

On 18th and 19th August, 2011 Bureau Veritas Certification visited the project site where interviews with the project participants, and project owners: RN UganskNefteGas (project operator), CTF Consulting (project developer), were performed to confirm selected information about the technical and economic characteristics and parameters of the project GTPP and to clarify issues identified in the review of the PDD v.1.1. Interviewed representatives of RN UganskNefteGas, and CTF Consulting are listed in References. The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
Project participants: LLC RN UganskNefteGas CTF Consulting	<ul style="list-style-type: none"> • The project history; • Status of the project implementation. • License agreements. • Baseline theoretical description. • Project financial attractiveness and additionality. • Raw data for ER ex-ante estimation. • Organizational and management system for emission reduction monitoring. • Monitoring procedures and equipment. • Environment Impact Assessment.

2.3 Resolution of Clarification and Corrective Action Requests

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

Corrective Action Request (CAR) is issued, where:

- (a) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;
- (b) The JI requirements have not been met;
- (c) There is a risk that emission reductions cannot be monitored or calculated.

The determination team may also issue Clarification Request (CL), if information is insufficient or not clear enough to determine whether the applicable JI requirements have been met.

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The determination team may also issue Forward Action Request (FAR), informing the project participants of an issue that needs to be reviewed during the verification.

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

3 PROJECT DESCRIPTION (excerpts from PDD v. 1.4)

Priobskoe oil field is one of the largest reservoirs of oil in Russia and in the world. It is situated in Khanty-Mansiisky Autonomous District near the town of Khanty-Mansiisk, and divided by Ob' River into the left-bank and the right-bank parts. The left-bank part is being developed since 1988, and the right-bank part is being developed since 1999.

LLC “RN-Uganskneftegas” develops the north part of Priobskoe oil field. This part belongs to OJSC “Oil Company “Rosneft”. The remaining mineable reserves of category ABC1+C2 were estimated at 500 million tons as of January 1, 2009. Annual extraction in 2009 peaked at 33,836.8 thousand tons in 2009 and somewhat decreased in 2010.

The goal of the proposed project is to reduce the environmental impacts by implementing the program of utilization of Associated Petroleum Gas (APG) which had been previously flared.

Situation existing prior to the starting date of the project

Before project implementation the associated petroleum gas produced by LLC “RN-Uganskneftegas” at Priobskoe oil field was mostly flared in the flares of oil collection and preparation installations. The products of its combustion including CO₂, methane, nitrous oxides, soot, and some other substances typical for APG flaring were released into the atmosphere and created negative impact for the global and local environment and human health.

Project scenario

Rosneft implemented measures aimed at reduction of APG flaring at Priobskoe oil field between 2007 and 2011. Company has chosen following directions to utilize flared APG: (i) APG compression and transportation to Yuzhno-Balyksky gas processing plant of Sibur company (YB GPP), (ii) utilization of APG as a fuel for electricity generation at the largest in Russia 315 MW gas turbine power plant to be constructed at Priobskoe oil field.

The first direction was in fact implemented at the end of 2007, when a new 167-km long pipeline was constructed. The compressor station #1 (CS-1)

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was commissioned in November 2007 and boosted APG through the pipeline. YB GPP processes APG into dry stripped gas and heavier hydrocarbon fractions. Dry stripped gas is pumped to the main pipeline of OJSC Gazprom, while the hydrocarbon fractions are used as fuel and raw material for upstream processing. OJSC Sibur is the owner of YB GPP and one of the largest petrochemical enterprises in Russia and Eastern Europe.

Collection of APG in the right-bank part of Priobskoe oil field will be launched in August of 2011, when the compressor station #2 (CS-2) will be commissioned.

To implement a second direction, during the period 2009-2011 at Priobskoe oil field will be constructed:

- Gas Turbine Power Plant (GTPP) equipped with seven 45 MW Siemens gas turbines SGT-800 being commissioned in three stages, and
- Gas Treatment Installation (GTI), which extracts gaseous methane-ethane fraction from raw APG, being commissioned in two stages. The methane-ethane fraction of APG is burned in GTPP gas turbines while the remaining condensed liquid hydrocarbon fractions are mixed with oil in the pipeline.

Thus OJSC "Oil Company "Rosneft" will be capable to provide technically feasible level of utilization of APG produced at Priobskoe oil field.

Despite the fact that OJSC "Oil Company "Rosneft" financed construction of infrastructure at Priobskoe oil field for APG recovery, preparation and compressing under the proposed project this company cannot claim its rights to the whole amount of the Emission Reduction Units (ERU) generated in the course of implementation of Priobskoe oil field Gas program in the framework of the present project. The reason is that OJSC "Sibur" has passed necessary JI procedures and obtained an approval from the Ministry of Economic Development of the Russian Federation (Designated Focal Point) to implement a Joint Implementation project "Processing of associated petroleum gas at Yuzhno-Balyksky gas processing plant". This project considers all APG which is piped to YB GPP from Priobskoe oil field in 2009-2012 as flared under the baseline.

To avoid double counting all APG which is delivered to YB GPP from Priobskoe oil field in 2009-2012 and associated ERUs are excluded from consideration in the PDD. However since the crediting period in the original PDD of JI project implemented at YB GPP did not include year 2008 the emission reduction achieved by processing of APG at YB GPP instead of flaring in 2008 was considered in the present project proposed by OJSC "Oil Company "Rosneft".

Baseline scenario

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In the absence of the proposed JI project the electricity for Priobskoe oil field needs would be consumed from the grid (electricity produced by power plants of UES Urals) and the flaring of APG at Priobskoe oil field would continue, because implementation of the Gas program would have required considerable investments by OJSC “Oil Company “Rosneft”, and it would not be economically viable for the company. The company would invest its financial resources in exploration of Priobskoe oil field and expansion of oil extraction rather than in implementation of this project.

Short description of JI project history

Project implementation became possible only by means on flexible mechanism of Joint Implementation under the Kyoto Protocol. Rosneft made its internal decision to implement this project in 2006, and began full-scale financing of project activities, because after development of technical design documentation for CS-1 in 2003 the project implementation was suspended. The decision to arrange the project by JI mechanism was made together with the similar decision on the other large-scale projects of Rosneft (Kharatur, Komsomolskoe), that have received already an approval as JI projects from Russian Designated Focal Point.

4 DETERMINATION CONCLUSIONS

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

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

The Corrective Action Requests are stated, where appropriate, in the following sections and are further documented together with Clarification Requests in the Determination Protocol in Appendix A. The determination of the Project resulted in 21 Corrective Action Requests, 12 Clarification requests and 1 Further Action Request.

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

4.1 Project approvals by Parties involved (19-20)

The project has no approval by the Parties involved – Russian Federation and Netherland. This was reported in CAR 01 which left open.

4.2 Authorization of project participants by Parties involved (21)

The participation of OJSC Oil Company “Rosneft” s and Carbon Trade and Finance SICAR S.A. (CTF SICAR) listed as project participant in the PDD is

not authorized by the Parties involved as LoA has not been issued by the Parties involved.

The authorization is expected to be made through the issuance of LoA.

4.3 Baseline setting (22-26)

- PDD v.1.4 explicitly indicates that JI specific approach was used for baseline setting in accordance with appendix B of the JI Guidelines /04/ and with the Guidance on criteria for baseline setting and monitoring/Version 01 /05/ (hereinafter referred to as JI specific approach).

JI specific approach

PDD sec. B.1 provides a detailed theoretical description in a complete and transparent manner, as well as justification, that the baseline is established by:

- listing and describing future scenarios available for the project owner OJSC Oil Company "Rosneft" and selecting the most plausible one;
- taking into account sectoral reform initiatives, local fuel availability, the economic situation in the project sector, availability of capital for the implementation of alternatives, local availability of technologies and techniques, skills and know-how regarding alternatives;
- In a transparent manner with regard to the choice of the JI specific approach and related methodologies, assumptions, parameters, data sources and key factors for baseline setting, which are listed in tabular format in Section B.1;
- taking into account of the uncertainty and using a conservative assumption with regard to the multi-project electricity grid emission factor. Grid emission factor was taken from the Baseline Study for Russia Development of the electricity carbon emission factors for Russia /29/ verified by TUV SUD /30/;
- in such a way that ERUs cannot be earned for decreases in activity levels outside the project or due to force majeure;
- by drawing on the list of standard variables contained in appendix B to "Guidance on criteria for baseline setting and monitoring".

Following alternatives were considered for the project activity as the basis for baseline selection:

Alternative 1: Flaring of APG at Priobskoe oil field and consumption of electricity purchased from UES Urals grid;

Alternative 2: Implementation of APG utilization project at Priobskoe oil field as described in section A.2., without its registration as a Joint Implementation project;

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Alternative 3: Connection of the Priobskoe oil field with the gas main of Gazprom and delivery of the APG into the national gas distribution system without prior processing.

All of these alternatives are in compliance with Russian legislation. Nonetheless the APG recovery was included in the license for oilfield development /36/, the federal law dd. 21/02/1992 # 2395-1 “On the Earth Entrails” cl. 11 and 12 allows deviation from the agreed volumes and schedule of fossils recovery.

Alternative 3 was rejected as despite the dry gas characteristics meet the technical requirements there is no enough intake capacity in the nearest gas main. This fact was confirmed through the interview with RN UganskNefte-Gas representatives /3/.

Other alternatives, such as gas-lift system or GPP construction were not considered being not feasible technically or economically. Hence the the APG flaring is considered as the only plausible scenario.

Based on the analysis of alternatives and taking into account the results of the investment analysis presented in Section B.2, a conclusion is made that continuation of current situation with APG flaring and covering of the power demands by grid based electricity at the Priobskoe oilfield is the most plausible alternative.

Outstanding issues related to Baseline setting (22-26), PP’s response and the AIE conclusion are summarized in Appendix A (refer to CL 02 and 03, and additional CL 17 raised on the basis of site visit results).

The issued CLs concern:

- Clarification of theoretical baseline approach. Description in sec. B.2 PDD v.1.1 was not clear on the application of flare efficiency coefficient to all APG components (CL 02);
- Description of alternative 3 which initially included different technical measures for APG utilization. After revision made in PDD v. 1.3. the delivery of APG to gas main was left as the only feasible technically (CL 03);
- Clarification of the approach to estimate TDL in the baseline. Conservativeness was supported while comparing with Ural grid specific coefficients provided in Grid Emission Factor Baseline study /29/ (CL17);

4.4 Additionality (27-31)

Additionality of the proposed project is proved in accordance with requirement 2(a) of Annex 1 of JI Guidance on criteria for baseline setting and monitoring, version 02.

Section B.2 demonstrate the addionality through provision of proves to confirm that project without being registered as JI is not economically attractive and hence is unlikely a part of baseline.

Additionality is transparently justified in following stepwise mode:

Step 1. Identification and description of the approach applied.

It is stated that JI specific approach in accordance with requirement 2(a) of Annex 1 of JI Guidance on criteria for baseline setting and monitoring, version 02 was used.

Step 2. Application of the approach chosen

Two scenarios were selected on the basis of alternative analysis: continuation of the current situation and project activity not being registered as JI.

Step 3. Provision of additionality proofs

Investment analysis was applied to demonstrate that the project not being registered as JI is not financially attractive and hence unlikely to be the baseline.

Benchmark analysis was chosen as the method of investment attractiveness evaluation. Following key parameters were validated on the basis of information provided by Rosneft /39/ determined on the basis of internal investment analysis procedure:

Discount rate -10%;

Estimation horizon - 24 years;

Costs of APG extraction, 258 RUB/th³ m³ with 7% annual inflation rate;

Price of electricity purchase from grid, 304 RUB/KWh with 7% annual inflation rate;

Costs of electricity production at GTPP (with fuel gas), 0.402 RUB/KWh with 7% annual inflation rate;

The benchmark IRR was estimated as 15%.

The key input values for investment analysis were determined on the basis of Business Plan with use of actualized input values of capital investments.

Operation lifetime in the investment analysis was determined on the basis of Project design /20/. The operation lifetime is not less than officially established depreciation normative /34/, and hence deemed conservative. The calculation of benchmark rate was justified in the revised version of financial model. On the basis of information provided by PP and revision made in the PDD v.1.4 and investment analysis spreadsheet the initial issues were sufficiently addressed and the investment analysis outcome was confirmed.

Investment analysis was resulted in negative NPV and IRR far less than benchmark that demonstrates financial additionality.

Sensitivity analysis with $\pm 10\%$ variation range for the key investment parameters (CAPEX, power price) was selected to support the reliability of investment analysis outcome. The sensitivity analysis confirms that the con-

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clusion regarding the financial non-attractiveness is robust to reasonable variations in the critical assumptions.

Barrier analysis was applied to confirm the outcome from investment evaluation. Following barrier was identified.

Associated petroleum gas price regulation and price disproportions

The barrier arose due to governmentally regulated APG prices existed till 2008 that was confirmed through the review of respective legal enactments /32/. Artificially lowered APG prices maintain APG recovery economically inefficient and unprofitable. This statement is inline with the analytical study of Legal aspects of APG Utilization issued by Federation Council in 2009. The barrier was found reliable.

Common practice analysis was applied to demonstrate that the activity similar to the proposed project is not widely spread in the region. It was stated that no activity similar to the project in terms of complexity and scale has been implemented in the Khanty-Mansiysk Ugra Autonomous Region without claiming JI status. The common practice analysis outcome was confirmed through the interviews held during site visit and the review of publicly available information at the official regional websites.

Outstanding issues related to Additionality (27-31), PP's response and the AIE conclusion are summarized in Appendix A (refer to CAR 03, CL 04, CL 05, CL 06, and CL 07).

The issued CARs concern:

- Justification of alternative 3 rejection which initially was made on the basis of its financial inefficiency in PDD v. 1.1 (CAR 03). CAR was closed on the basis of PDD v.1.3 review, where alternative 3 was reconsidered and became the APG delivery to the gas main;
- Clarification of alternative 3 was requested under CL 03.
- Clarification of the discount rate value chosen (10%) (CL 04);
- Clarification of relevance of investment analysis to the date of making a decision to start the project (CL 05);
- Clarification of the relevance of the barrier description to the period starting from 2008 when the governmental regulation of tariffs was desaffimed (CL 06).
- Clarification of the common practice (CL 07).

4.5 Project boundary (32-33)

JI specific approach

The project envisages three measures to achieve GHG emission reduction:

- Cessation of APG flaring at Priobskoe oilfield and utilization of APG to YB GPP where it substitutes respective non-associated hydrocarbons consumed by end-users;

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- Power generation at the APG firing GTPP of 315 MW total installed capacity and its provision to the Priobskoe oil field to cover the power demands that otherwise would have been covered by power export from the regional grid. The emission reduction will be achieved through substitution of grid based electricity and avoidance of CO₂ emissions from fossil fuels combustion at the grid connected power plants;
- Avoidance of methane emissions due to incomplete APG combustion at flares.

The project boundary encompasses all anthropogenic emissions by sources of greenhouse gases as listed in Table B.3-1 which are:(i) under the control of the project participants; (ii) reasonably attributable to the project; and (iii) significant.

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

- CO₂ emissions from APG combustion at GTPP.
- CO₂ emissions from fossil fuels consumption at the grid connected plants to produce the electricity consumed by the project installations at Priobskoe oilfield (CS1, CS2, GTI and compressor stations of final separation stages),
- CO₂ emissions from the combustion of natural gas consumed from gas main to supply the GTPP.

Combustion of APG at the gas turbines driving compressors at CS 1 and CS 2 was not considered as emission source as the equal amount of APG would have been flared anyway in the baseline.

The fugitive methane leaks from the project gas transportation and processing facilities are calculated according to the relevant national standards and indicated in the air pollutant emission limits /37/.

As per review of air pollutant emission estimation made in the draft of Emission Limits attributable to the proposed project activity total amount of methane leaks from APG recovery, transportation, pretreatment and combustion at the GTPP will not exceed 64 t/y or 1200 t CO₂ eq./ per year. Hence this source can be neglected.

Baseline emission sources include:

- CO₂ emission from APG flaring;
- CH₄ emission due to incomplete APG flaring (2% of volume according to IPCC 2006);
- CO₂ emission from the fossil fuel combustion at the grid connected power plants to produce the electricity that would have been supplied to the Priobskoe oilfield in the absence of power production at the GTPP.

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Based on the assessment of the project documentation, the AIE hereby confirms that the identified boundary and the selected sources and gases are justified for the project activity.

Outstanding issues related to the Project boundary delineation (32-33), PP’s response and the AIE conclusion are summarized in Appendix A (refer to CAR 04 CL 08 CL 09, and CL 10).

The issued CARs and CLs concern:

- justification of project emissions source related to NG consumption at GTPP (CAR 04);
- Clarification of the baseline electricity consumption (CL 08);
- justification of fugitive methane emissions from APG transportation and processing (CL 09);
- indication of emission sources (CL 10);

4.6 Crediting period (34)

The starting date of the project is determined as 23/03/2006 when the Rosneft’s gas program of UganskNefteGas, including APG recovery at Priobskoe oilfield were adopted. This date was confirmed through the review of respective minutes /49/.

PDD v.1.4 states the expected operational lifetime of the project in years and months, which is 22 years or 264 months, as defined on the basis of project Design /20/.

The PDD states the length of the first crediting period in years and months, which is 5 years, starting from 01/01/2008, which is on the date the first emission reductions or enhancements of net removals are generated by the project (APG delivery to the YB GPP).

The second crediting period from 01/01/2013 to 31/12/2020 is the subject for the Host Party approval.

Identified areas of concern as to the project starting date, PP’s response and BV Certification’s conclusion are described in Appendix A Table 2 (refer to CAR 05).

4.7 Monitoring plan (35-39)

The PDD, in its monitoring plan section, explicitly indicates that JI specific approach regarding monitoring has been applied in accordance with Appendix B of the JI Guidelines /04/ and with the JISC Guidance on criteria for baseline setting and monitoring /Version 01 /05/.

JI specific approach

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The monitoring plan adequately specifies the indicators, constants and variables used that are reliable, valid and provide transparent picture of the emission reductions to be monitored.

1/ The monitoring plan describes the parameters to be monitored to estimate project emissions:

- Electricity consumption by CS-1 and CS-2;
- Electricity consumption by the compressor station of APG of final separation stages at OTTW-7, PWDU of cluster 285, OTTW-8, and PWDU of cluster 201;
- Electricity consumption for own needs of GTI;
- Consumption of treated APG at GTPP;
- Volumetric fraction of component in the treated APG;
- Consumption of natural gas by GTPP.

and baseline emissions:

- Volume of APG, supplied to YB GPP in 2008;
- Volumetric fraction of component in the APG;
- Consumption of treated APG by GTPP;
- Volumetric fraction of component in the treated APG;
- Net output of electricity from Priobskaya GTPP;
- Process loss of UES Urals grid electricity during transmission and distribution;

2/ The parameters not to be monitored but determined only once and available at the stage of determination, including:

- Emission factor for NG taken from 2006 IPCC.
- CO₂ density under standard conditions determined on the basis of national standard GOST 8050-85 «Gaseous and liquid carbon dioxide»;
- Methane density determined on the basis of national standard GOST 30319.1-96 «Physical properties of natural gas, its components and products of its processing»;
- CO₂ emission factor for electricity supplied to UES Urals grid determined on the basis of "Development of the electricity carbon emission factors for Russia", 2010, Lahmeyer International;
- Efficiency of APG flaring taken from IPCC Guidelines for National GHG Inventories (2006);
- Global warming potential of methane;
- NCV of Natural gas as determined on the basis of laboratory testing results /11/.

The monitoring plan draws on the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring" developed by the JISC, as appropriate (project and baseline emissions and their components, and relevant emission factors).

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Allocation of responsibilities for Monitoring Plan implementation and Monitoring Report preparation and an operational and management structure that RN UganskNefteGas will implement to monitor emission reduction are explicitly described in the PDD. Monitoring related quality control and quality assurance procedures are to be implemented according to the national monitoring standards /31/ provided to verifier.

The level of uncertainty of measured parameters was determined as "low" basing on the review of meters certificates and calibration records as presented in the table below:

Type #	Date	Date of next calibration	Uncertainty level	Calibration certificate
Natural gas for GTPP (FC_{NG})				
Ultrasonic meter FLOWSIC 600 serial number #09068601	14/04/2009	Valid until 14/04/2013	0.3%	#364013-09
Ultrasonic meter FLOWSIC 600 serial number #09068602	14/04/2009	Valid until 14/04/2013	0.3%	#365013-09
Analyser of dew point KONG-Prima-10 serial number IB #08090296; PTR #068	14/03/2011	Valid until 14/03/2012	1.0%	#1001
Analyser of dew point KONG-Prima-10 serial number IB #08090307; PTR #090	14/03/2011	Valid until 14/03/2012	1.0%	#1000
Measuring controller FloBoss S600 serial number #17973737	13/05/2010	Valid until 13/05/2012	0.01%	#1572
Measuring controller FloBoss S600 serial number #17973738	18/05/2010	Valid until 18/05/2012	0.01%	#1632
Pressure transducer YOKOGAWA EJX510A serial number #91J914235	02/11/2010	Valid until 02/11/2013	0.025...0.6%	#4324
Pressure transducer EJA510A serial number #91J914236	18/11/2010	Valid until 08/11/2013	0.025...0.6%	#4501
Measuring controller FloBoss S600 serial number #17974269	02/11/2010	Valid until 02/11/2012	0.01%	#4315
Measuring controller FloBoss S600 serial	02/11/2010	Valid until 02/11/2012	0.01%	#4314

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number #17974270				
Gas chromatograph MicroSAM serial number #HXANCS5019	03/03/2011	Valid until 03/03/2012	1.0%	#0004-11
Treated APG for GTPP (FC_{APG treated})				
Ultrasonic meter FLOWSIC 600 serial number #09338517 is located in GTI.	07/09/2009	Valid until 07/09/2013	0.3%	#746013-09
Thermoresister YTA 110 serial number #C2J906470 is located in GTI.	18/11/2010	Valid until 08/11/2012	0.2%	#4499
Volumetric fraction of component in the treated APG (y_{i APG treated})				
Gas chromatograph MicroSAM serial number #HX-X8-CS5001 in GTI.	16/11/2010	Valid until 16/11/2011	1.0%	#4481
Treated APG for GTPP (reserve line)				
Ultrasonic meter FLOWSIC 600 serial number #09338516 is located in GTI. Consumption of treated APG by GTPP (FC _{APG treated})	07/09/2009	Valid until 07/09/2013	0.3%	#747013-09
Thermoelement YTA 110 serial number #C2J906471 is located in GTI.	02/11/2010	Valid until 02/11/2012	0.2%	#4326
Volumetric fraction of component in the treated APG (y_{i APG treated}) (reserve line)				
Gas chromatograph Kristall 2000M serial number #821507	12/11/2010	Valid until 12/11/2011	1.5%	#4374
Volumetric fraction of component in the APG (y_{i, APG})				
Gas chromatograph Kristall 2000M serial number #5444	04/02/2011	Valid until 04/02/2012	1.5%	#486

APG composition is tested in the accredited laboratory /42/.

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

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The project has not been implemented completely at the moment of determination. During the site visit held on 18 and 19 August 2011 verifiers was not able to check the reliability of Monitoring system, QC/QA procedures, and authority/responsibility distribution applicable to the electricity consumption at CS2 which had not been completed. The internal Monitoring procedure for the GHG emission reduction including QC/QA procedures, authority/responsibility for the data collection, storing, as well as ER calculation reporting, s are the subject for assessment prior the first verification hence FAR 01 was raised.

Outstanding issues related to Monitoring plan (35-39), PP's response and the AIE conclusion are summarized in Appendix A (refer to CAR 06, CL 11-14 and CL 18 raised on the basis of site visit results).

The issued CARs and CLs concern:

- application of APG incomplete flaring coefficient to the APG fractions (CAR 06);
- the period of monitoring (CAR 11);
- application of fixed parameter for the NCV of Natural Gas (CL 12);
- determination of monitoring data storage time in the PDD (CL 13);
- procedures to be followed if the monitoring data are unavailable (CL 14);
- description of the procedure for estimation of power consumption by the gas compressors at the oil production sites on the basis of their intake power capacity and operational hours (CL 18).

4.8 Leakage (40-41)

JI specific approach

The leakage effect is the net change of anthropogenic GHG emissions outside the project boundary caused by the proposed project activity including:

- Fugitive methane emissions from the recovering and transportation of NG and APG (supplied to GTPP), the products of APG processing (the latest is relevant for 2008 y only).
- Production and transmission of electricity in the regional grid;
- Operations of the equipment which is decommissioned during project implementation and moved beyond the project boundaries.

It was reasonably assumed that the fugitive emissions from NG recovery and transportation that would occur without proposed project activity are equal to that taking place in the project. Hence leakage effect is assumed to be negligible.

Outstanding issues related to Leakage (40-41), PP's response and the AIE conclusion are summarized in Appendix A (refer to CL 15).

The issued CL concern:

- the leakage effect related to the transportation of APG processing products in 2008 (CL 15).

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

JI specific approach

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

The PDD provides the ex ante estimates of emission reductions from the project (within the project boundary), which are 3,900,810 tCO₂e for the first crediting period;

The estimates referred to above are given:

- On an annual basis;
- From 01/01/2008 to 31/12/2012 the first crediting period and from 01/01/2013 to 31/01/2020 – the second crediting period that is subject for approval by Host Country;
- On a source-by-source basis;
- For CO₂ and CH₄ as GHG emitted.
- In tonnes of CO₂ equivalent, using global warming potential for methane (21) defined by decision 2/CP.3.

The formulae used for calculating the estimates referred above, which are Formulae in Sections D.1.1.2, D.1.1.4 and D.1.4 are consistent throughout the PDD. Input data for calculations and the calculations per se are presented on the spreadsheet /02/ in transparent and reproducible manner. Verifiers observed the final calculations as accurate. The results are summarized in Section E.

For calculating the estimates referred to above, key factors defined in the monitoring plan influencing the project and baseline emissions were taken into account, as appropriate.

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

Outstanding issues related to Estimation of emission reduction (42-47), PP's response and the AIE conclusion are summarized in Appendix A (refer to CAR 07).

4.10 Environmental impacts (48)

The project contributes to sustainable development of Khanty-Mansyisk Region and Russia in general by reduction of APG flaring and its utilization in form of useful products substituting respective non associated hydrocarbons and provision of electricity to the regional consumers.

The foreseen Environmental impacts caused by the proposed project activity mainly by air pollutant emissions from GTPP and fugitive leaks from gas transportation and processing system comply to the respective legal requirements and limits as recognized in the EIA developed as the part of project design that underwent official procedure of State Expertise and was confirmed by its positive conclusion for CS1 /21/ and for the rest project components /24/.

No areas of concern as to Environmental Impacts are identified.

4.11 Stakeholder consultation (49)

Russian Federal Law 7-FZ “On Environmental Protection” cl. 13 para 2 requires stakeholders' comments to be considered in decision making process to start any activity potentially causing adverse environmental effect. The procedure of participation of citizens and public organizations in the public expertise was not conducted due to the remoteness of the objects of Priobskoe oil field from population aggregate (the nearest settlement – Seliyarovo is situated in 17 km from the GTPP). Nevertheless the information on the project realization was made publicly available through the official web site Rosneft and was unannounced in the local press.

LLC “RN-Uganskneftegas” has a procedure for registration of complaints and comments coming from all stakeholders. No complaints or negative comments have been received as confirmed by the interview with PP held on site.

The identified area of concern as to Comments by Local Stakeholders, PP’s response and BV Certification’s conclusion is described in Appendix A Table 2 (refer to CL 16 raised to clarify the procedure of Stakeholder’s engagement).



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4.12 Determination regarding small scale projects (50-57) (Not applicable)

4.13 Determination regarding land use, land-use change and forestry (LULUCF) projects (58-64) (Not applicable)

4.14 Determination regarding programmes of activities (65-73) (Not applicable)

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

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

6 DETERMINATION OPINION

Bureau Veritas Certification has performed a determination of the «Associated Petroleum Gas Recovery at Priobskoe Oil Field of «Rosneft» project. The determination was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

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

Using investment analysis, barrier analysis and common practice analysis the project participants proved that the project activity itself is not the baseline scenario.

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

The review of the project design documentation and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfillment of stated criteria.

The determination revealed two pending issues related to the current determination stage of the project: the issue of the written approval of the project and the authorization of the project participant by the host Party. If the written approval and the authorization by the host Party are awarded, it is our opinion that the project as described in the Project Design Document, Ver-



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sion 1.4 meets all the relevant UNFCCC requirements for the determination stage and the relevant host Party criteria.

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

7 REFERENCES

Category 1 Documents:

Documents provided by Project developers that relate directly to the GHG components of the project.

- /1/ PDD "Associated petroleum gas recovery at Priobskoe oil field of "Rosneft"
 a/ Version 1.1 dd. 18/07/2011,
 b/ Version 1.2 dd. 21/07/2011.
 c/ Version 1.3 dd. 22/08/2011,
 d/ Version 1.4 dd. 25/08/2011
- /2/ ER Calculation Excel spreadsheet versions 1.1 - 1.4
- /3/ Investment Analysis Excel spreadsheet versions 1.1 - 1.4

Category 2 Documents:

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

- /4/ Guidelines for the implementation of Article 6 of the Kyoto Protocol
<http://unfccc.int/resource/docs/2005/cmp1/eng/08a02.pdf#page=2>
- /5/ Guidance on criteria for baseline setting and monitoring Version 01
http://ji.unfccc.int/Ref/Documents/Baseline_setting_and_monitoring.pdf
- /6/ Monthly reports on the high pressure gas delivery signed by OJSC "YB GPP" and LLC "RN Yuganskneftegas"
 Jan. 08 – 9,720 ths. m³; Feb. 08 – 11,550 ths. m³; Mar. 08 – 13,096 ths. m³;
 Jun. 08 – 7,268 ths. m³; Jul. 08 – 37,866 ths. m³; Aug. 08 – 20,170 ths. m³;
 Sep. 08 – 49,191 ths. m³; Oct. 08 – 57,200 ths. m³; Nov. 08 – 63,110 ths. m³;
 Dec. 08 – 91,346 ths. m³; Jan. 10 – 104,660 ths. m³; Feb. 10 – 93,327 ths. m³;
 Mar. 10 – 103,286 ths. m³; Apr. 10 – 97,166 ths. m³; May 10 – 91,181 ths. m³;
 Jun. 10 – 53,714 ths. m³; Jul. 10 – 61.140 ths. m³; Aug. 10 – 55,160 ths. m³;
 Sep. 10 – 68,667 ths. m³; Oct. 10 – 89,496 ths. m³; Nov. 10 – 85,937 ths. m³;
 Dec. 10 – 92,347 ths. m³; Jan. 11 – 93,764 ths. m³; Feb. 11 – 84,422 ths. m³;
 Mar. 11 – 94,514 ths. m³
- /7/ Gas quality certificates (lab testing results) for APG being supplied to YB GPP in 2008
- /8/ Monthly industrial reports on material consumption for 2008, 2010 and 2011.
- /9/ APG delivery reports to LLC "RN energo" (operator of GTPP) from LLC "Yuganskneftegas"
 The volumes delivered to GTPP Priobsky oilfield:
 Jun. 10 – 998.620 ths. m³



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- Jul. 10 – 25,352.845 ths. m³
 Aug. 10 – 29,543.000 ths. m³
 Oct. 10 – 1 600.000 ths. m³
 Nov. 10 – 360 ths. m³
- /10/ NG delivery reports to LLC "RN energo" from LLC "Gaspromtransgas"
- /11/ NG composition testing reports for NG delivered to GTPP for Dec. 2009 to Mar. 2011
- /12/ List of metering and testing equipment
- /13/ Power production reports for 2010 - 2011
- /14/ Electricity consumption log for 2008 and 2010-2011
- /15/ Gas composition at KS 1 log for 2008 Jun.-Aug 2010, Apr.-May 2011
- /16/ Construction Acceptance Report dd. 25/06/2010 for GTPP.
- /17/ Construction Acceptance Report dd. 17/12/2009 for GTPP start-up complex.
- /18/ Construction Acceptance Report dd. 26/08/2010 for Gas pre-treatment installation 1st start-up complex.
 GPI operation permit #KhMN-3002 728- UVS/E dd. 28/09/2010.
- /19/ Natural Gas composition testing reports for Jan-Mar 2011
- /20/ GTPP Project design Vol.1 General Explanatory Note; Vol. 2 Technical solutions; Vol. 3.1 Engineering systems and equipment. Explanatory Note; Vol. 13 Environmental Protection Measures.
- /21/ State Expertise conclusion (Positive) on #205-09/GGE-5979/02 dd. 13/04/2009
- /22/ APG utilization system at Priobskoe Oilfield KS 1 Project design General Explanatory Note dd. 2003
- /23/ CS-1 Project approval order #274 issued by OJSC "Yuganskneftegas" dd.13/08/2004
- /24/ State Expertise conclusion (Positive) #75/903 A dd.19/07/2004 for CS1
 State Environmental Expertise conclusion #1383 01/06/2004
- /25/ APG measuring methodology approval certificate #263013- 09 dd.27/03/2009 (total uncertainty does not exceed 0.53%)
- /26/ Calibration certificates for the meters and measuring equipment for the
 Monitoring of
Natural gas for GTPP;
Treated APG for GTPP
Volumetric fraction of component in the APG
Volumetric fraction of component in the treated APG
Volumetric fraction of component in the treated APG (yi APG treated) (reserve line)
Treated APG for GTPP (reserve line)
Treated APG for GTPP
- /27/ CS-1 completed construction acceptance report # 937-2008 dd. 16/12/2008

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- CS -1 Operation permit RU 86000615_1175 dd. 17/12/2008
Compliance Conclusion for CS-1 #4163 dd. 3/12/2008
- /28/ GTPP 1st stage completed construction acceptance report # 32/03-04/1036 dd. 17/12/2009
CS -1 Operation permit KhMN-3000587-UVS/E dd. 22/12/2009
Compliance Conclusion for CS-1 #7199 dd. 14/12/2009
- /29/ Development of the electricity carbon emission factors for Russia / Baseline Study for Russia - Final Report // European Bank for Reconstruction and Development dd. 09/09/2010
- /30/ Report "Assessment of the Grid Emission Factor Calculation Model for Russia" dd. 27/09/2010 by TÜV SÜD Industrie Service GmbH
- /31/ National standards for monitoring
i/ GOST 5542-87 Natural gases for commercial and domestic use. Specifications.
ii/ GOST 29328-92 Stationary gas turbines for turbogenerators. General technical requirements.
- /32/ Order # 172 dd. 13 June 2001 г. Issued by Economical development and Trade Ministry On Governmental Regulation of prices for APG delivered to Gas Processing Plants for the Further Processing and liquefied gas for household needs.
- /33/ The Central Bank of the Russian Federation, Bulletin of Banking Statistics, No 10, 2008, <http://cbr.ru/eng/publ/BBS/Bbs0810e.pdf>.
- /34/ RF Governmental decree #1 dd. 01/01/2002 On Classification of Main Assets Included into Depreciation Groups
- /35/ Calibration schedule for the meters at LLC Yuganskneftegas for 2011.
- /36/ License agreement for Priobskoe oilfield development
- /37/ Calculation of air pollutants emission limits
- /38/ Environmental impact fee calculation (4th quarter 2010)
- /39/ Information letter #09-1039 dd.31/08/2011 on the investment calculations signed by Deputy Director financial department of Rosneft Mr. Latish R.R.
- /40/ Training records and certificates for the key operational personal
- /41/ Training records and programs for the operation personal involved into gas recovery, pretreatment and transport infrastructure operation.
- /42/ Laboratory accreditation certificate #ROSS RU.0001.513592 valid till 28/04/2015
- /43/ Information on booster equipment for 2012
- /44/ Operational hours records for booster stations in June 2011.
- /45/ Operational hours records for booster stations in 2010.
- /46/ Booster stations operational hours records for Jan – May 2011.



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- /47/ Federal Law N 2395-1 dd. 21/02/1992 On Earth Entrails cl. 11-12
- /48/ http://www.council.gov.ru/print/publications_sf/2009/03/item291.html
- /49/ Minutes #12 of OJSC Rosneft investment committee meeting dd. 23/03/2006

Persons interviewed:

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

- /1/ Konstantin Myachin, CTF Consulting (PDD developer)
- /2/ Svetlana Pyd'ko, CTF Consulting (PDD developer)
- /3/ Alexey Pyatashin, LLC RN Uganskneftegas the head of Gas Processing Dept.
- /4/ Leonid Kim, LLC RN Uganskneftegas the head of operational Dept.
- /5/ Alexey Sidorenko, LLC RN Uganskneftegas the Chief Engineer.
- /6/ Oleg Ivanov, Director of GTPP
- /7/ Dmitry Nosikov LLC RN Uganskneftegas the Chief Metrology Engineer.
- /8/ Nikolay Smelko LLC RN Uganskneftegas Deputy Chief Engineer.

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APPENDIX A
DETERMINATION PROTOCOL

Table 1

Check list for determination, according JOINT IMPLEMENTATION DETERMINATION AND VERIFICATION MANUAL (Version 02)

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
Guidelines for JI PDD Form Users				
Section A General description of the project				
A.1. Title of the project				
A.1	<p>Is the title of the project presented?</p> <p>Is the sectoral scope to which project pertains presented?</p> <p>Is the current version number of the document presented?</p> <p>Is the date when the document was completed presented?</p>	<p>The title of the project is: "Associated petroleum gas recovery at Priobskoe oil field of "Rosneft".</p> <p>The sectoral scopes are:</p> <p>(1) Energy industries, and (10): Fugitive emissions from fuels (solid, oil and gas).</p> <p>The PDD Version 1.1 was originally presented to Bureau Veritas and reviewed as a part of determination.</p> <p>PDD v.1.1 is dated 18/07/2011,</p> <p>PDD v.1.2 is dated 21/07/2011.</p>		OK
A.2 Description of the project				
A.2	<p>Is the purpose of the project included with a concise, summarizing explanation</p>	<p>The Projects purposes to reduce the environmental impacts by implementing the program of utilization of Associated Petroleum Gas</p>	CL 01	OK



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Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
	<p>(max. 1-2 pages) of the:</p> <p>a) Situation existing prior to the starting date of the project;</p> <p>b) Baseline scenario; and</p> <p>c) Project scenario (expected outcome, including a technical description).</p> <p>Is the history of the project (incl. its JI component) briefly summarized?</p>	<p>(APG) which had been previously flared. .</p> <p>Prior to the project implementation the associated petroleum gas produced by LLC “RN-Uganskneftegas” at Priobskoe oil field was mostly flared in the flares of oil collection and preparation installations.</p> <p>Baseline scenario is suggested to be the continuation of the situation had been taking place prior the project start.</p> <p>Project scenario implies (i) APG compression and transportation to Yuzhno-Balytsky gas processing plant of Sibur company (YB GPP), (ii) utilization of APG as a fuel for electricity generation at the largest in Russia 315 MW gas turbine power plant to be constructed at Priobskoe oil field.</p> <p>Project implementation started with gas transportation to YB GPP in 2007. GTP is proposed to start operation in Aug 2011.</p> <p>The decision to implement the project with attraction of JI mechanism was adopted in 2006.</p> <p>CL 01 Please clarify the following points in sec. A.2:</p> <p>a/ Technical description of the proposed project activity in section A.2 does not describe sources of energy supply in the baseline and the project scenarios.</p> <p>b/ Heavy hydrocarbons extracted from APG at the GTI and YB GPP are used as fuel and raw material for upstream processing. Please indicate if the project affects the volume of oil recovered.</p> <p>c/ Sec. A.2 is not clear on the APG flows from left and right Ob's</p>		



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Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
		<p>banks. Please make it clear in the description whether or not the APG flows from left-bank and right-bank sides of oilfield are mixed. (Note: sec. A 4.2 stays that APG is transported to GTI and further to GTPP from both CS 1 and CS 2, a part of APG from CS 2 can be transported to CS 1. Further GTI (and finally GTPP) will have been supplied with APG from CS 1 until CS 2 is commissioned. APG surplus not consumed by GTPP will be transported from GTI to the oilfield). d/ PDD sec. A.2. states the project documentation for CS-1 was developed in 2003, whereas the decision to launch the project was adopted in 2006, starting date is determined as November 2007. Please describe the actions attributable to the project implementation being undertaken prior 2006.</p> <p>Closed on the basis of the review of revision made in PDD v.1.3</p> <p>SV 01 (SV – to be checked on site) Evidence to confirm project history and JI component.</p> <p>As per results of site visit and interviews held on site with managers of RN-Yuganskftegas the decision to start the project was adopted in 2006. Prior this period the project to construct CS-1 was developed and passed through the State Expertise. The works on the construction of CS1 were suspended due to lack of financing. Continuation of construction became possible only in view of perspective to earn additional finance from JI.</p> <p>The project history was confirmed by review of following documents: 2003 – 2004 CS -1 project design development and its approval by State expertise /22-24/;</p>		



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Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
		2008 – January start of APG delivery to YB GPP /06/ 16/12/2008 – Acceptance of CS-1 construction /27/ 26/08/2010 – acceptance of GPI (1 st stage) /18/ 2009 – GTPP project design development /20/ 13/04/2009 State Expertise conclusion and official approval of project /21/ 17/12/2009 – GTPP 1 st stage acceptance /28/ 25/06/2010 – GTPP 2 nd stage acceptance /29/ Planning stages (interview with RN Yugraneftgas’ representatives): Sep. 2011 Commissioning of CS 2 Sep. 2011 commissioning of GTI 2 nd stage.		
A.3 Project participants				
A.3	Are project participants and Party(ies) involved in the project listed? Is contact information provided in Annex 1 of the PDD?	Party A (host) is Russian Federation. Party B is Netherlands. Project participant for Party A is OJSC “Oil company “Rosneft”. Project participant for Party B is “Carbon Trade & Finance SICAR S.A.” (CTF SICAR) The contact information is provided in PDD Annex 1.		OK
A.4 Technical description of the project				
A.4.1	Location of the project	Refer to A.4.1.1-A.4.1.4.		OK
A.4.1.1	Host Party(ies)	The Russian Federation.		OK
A.4.1.2	Region/State/Province etc.	Khanty-Mansiisky Autonomous District - Ugra, Ural		OK
A.4.1.3	City/Town/Community etc.	Priobskoe oil field. LLC “RN-Uganskneftgas”, Oil Treatment and Transit Workshop (OTTW) #7. CS-1 and GTPP sites. Latitude:		OK



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Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
		61.100789. Longitude: 70.197144 (Source: Google Maps).		
A.4.1.4	Detail of the physical location, including information allowing the unique identification of the project. (This section should not exceed one page)	Sec. A 4.1.4. provides consistent information and geographical coordinate allowing unique identification of project location. The project is located at the following GPS coordinates: (Latitude North: 61.100789') / (Longitude East: 70.197144)		OK
A.4.2. Technologies to be employed, or measures, operations or actions to be implemented by the project				
A.4.2	Are the technology(ies) to be employed, or measures, operations or actions to be implemented by the project, including all relevant technical data and the implementation schedule described?	Section A.4.2 PDD provides description of technology and measures to be implemented to gain proposed emission reductions. It includes installation of <ul style="list-style-type: none"> • CS-1 and CS 2 down by APG based turbines, • Gas pipelines, • Electricity down low pressure compressor stations. • Gas treatment installations (GTI), • Priobskoe GTPP with installed capacity 315 MW. 		OK
A.4.3. Brief explanation of how the anthropogenic emissions of greenhouse gases by sources are to be reduced by the proposed JI project, including why the emission reductions would not occur in the absence of the proposed project, taking into account national and/or sectoral policies and circumstances				
A.4.3	Is it explained briefly how anthropogenic GHG emission reductions are to be achieved? (This section should not exceed one page.)	Sec. A 4.3 explicitly stays following emission reduction sources: <ul style="list-style-type: none"> • Recovery of APG, that otherwise would be flared and utilization of recovered APG instead of nonassociated hydrocarbons. • Substitution of electricity produced at the grid connected fossil fuel based power plants in UES Ural. 		



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Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
		<ul style="list-style-type: none"> Reduction of methane emission due to incomplete combustion of APG at the flares. 		
A.4.3.1. Estimated amount of emission reductions over the crediting period				
A.4.3.1	Is the length of the crediting period Indicated? Are estimates of total as well as annual and average annual emission reductions in tonnes of CO2 equivalent provided?	The length of the 1 st crediting period is 5 years. Total as well as annual and average annual emission reductions in tonnes of CO2 equivalent are provided.		OK
A.5. Project approval by the Parties involved				
A.5	Are written project approvals by the Parties involved attached?	CAR 01. The project has no approvals by the Parties involved. The project approval by the Host Party will be provided after the determination statement is issued by the AIE.	CAR 01 open	CAR 01
19	Have the DFPs of all Parties listed as “Parties involved” in the PDD provided written project approvals?	No, pending a response to CAR 01.	Pending	CAR 01
19	Does the PDD identify at least the host Party as a “Party involved”?	It is indicated that the Russian Federation is the host Party.		OK
19	Has the DFP of the host Party issued a written project approval?	No, pending a response to CAR 01.	Pending	CAR 01
20	Are all the written project approvals by Parties involved unconditional?	No, approvals from parties involved will be requested after the Host party approval will be issued. Pending a response to CAR 01. CAR 02. Sec. A.5 PDD v.1.2 stays “The second approval for the project will be received in Netherlands”. Does it mean that Party B is Netherland? Please gain a consistency through the PDD on whether or not Party B is determined. Netherlands was indicated as Party B in PDD v. 1.3	CAR 02	OK



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Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
Authorization of project participants by Parties involved				
21	Is each of the legal entities listed as project participants in the PDD authorized by a Party involved, which is also listed in the PDD, through: – A written project approval by a Party involved, explicitly indicating the name of the legal entity? or – Any other form of project participant authorization in writing, explicitly indicating the name of the legal entity?	Project participant for Party A is OJSC "Oil company "Rosneft". Project participant for Party B is "Carbon Trade & Finance SICAR S.A." (CTF SICAR) Pending a response to CAR 01.	Pending	CAR 01
Baseline setting				
22	Does the PDD explicitly indicate which of the following approaches is used for identifying the baseline? – JI specific approach – Approved CDM methodology approach	PDD explicitly indicate that JI specific approach is used for baseline setting.		OK
JI specific approach only				
23	Does the PDD provide a detailed theoretical description in a complete and transparent manner?	PDD sec. B.1 provides theoretical description of the approach applied to calculate baseline emissions. Baseline emissions are calculated on the basis of carbon content in APG. It is assumed that during flaring carbon from hydrocarbons contained in APG is transformed to equivalent amount of CO ₂ . Methane emissions from incomplete combustion of APG at the flaring system were taken into account. Starting from 2009 the emissions from CL 02 Following description at p. 14 PDD v. 1.2 all carbon from APG (100%) is converted to CO ₂ and then 2% is converted to methane. Please gain clarity in the description on what percentage of car-	CL 02 CL 17	OK OK



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		<p>bon is converted to CO₂ (it must be 98%) and to methane. Closed on the basis of the justification provided in PDD. v.1.3 SV 02. Check the sources for the baseline parameters as described in sec. B.1.</p> <p>SV results:</p> <ul style="list-style-type: none"> • Monthly volumes of APG being supplied to YB GPP in 2008 are verified through the APG supplying reports /06/; • APG composition for the whole crediting period was verified on the basis of the review of APG lab testing reports. For APG being supplied to YB GPP in 2008 /07/. • APG composition being supplied to GTPP is verified on the basis of lab testing results accumulated in the logbook /15/. • APG supply to GTPP was checked against APG delivery reports signed by RN-energo. /09/; • Electricity output from GTPP is verified on the basis of the review of power production reports for 2010-2011 /13/ • Transmission and distribution loses are verified on the basis of links provided to official websites of power distribution grid dispatchers. <p>CL 17 Please justify the conservativeness of TDL bearing in mind the values provided in the Baseline Study "Development of the electricity carbon emission factors for Russia" /29/ Application of actual date found conservative. CL 17 was closed.</p>		
23	Does the PDD provide justification that the baseline is established: (a) By listing and describing plausible future	The baseline was selected by listing of plausible alternatives. Relevant national policies, trends and rules are taken into account as	CL 03	OK



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	<p>scenarios on the basis of conservative assumptions and selecting the most plausible one?</p> <p>(b) Taking into account relevant national and/or sectoral policies and circumstance? – Are key factors that affect a baseline taken into account?</p> <p>(c) In a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, data sources and key factors?</p> <p>(d) Taking into account of uncertainties and using conservative assumptions?</p> <p>(e) In such a way that ERUs cannot be earned for decreases in activity levels outside the project or due to force majeure?</p> <p>(f) By drawing on the list of standard variables contained in appendix B to "Guidance on criteria for baseline setting and monitoring", as appropriate?</p>	<p>described in sec. B.1.</p> <p>Following key factor are taken into account.</p> <ul style="list-style-type: none"> • State policy and legislation in the oil and gas sector. • Economic situation in Russian oil and gas sector and projected demand. • Technical aspects of APG utilization • Availability of capital and analysis of investment barriers typical for OJSC "oil company "Rosneft" • Local availability of technology and equipment • Price and availability of fuel and electricity <p>Following alternatives were considered:</p> <p>Alternative 1: flaring of APG at Priobskoe oil field and consumption of electricity purchased from Ues Urals grid;</p> <p>Alternative 2: implementation of APG utilization project at priobskoe oil field as described in section a.2., without its registration as a joint implementation project;</p> <p>Alternative 3: implementation of APG utilization project at priobskoe oil field by other design like:</p> <p>A. Denial of construction of Priobskaya GTPP and pumping of all amount of compressed APG to Yuzhno-Balytsky GPP of Sibur,</p>		



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		<p>B. Construction of own gas processing plant at the Priobskoe oil field,</p> <p>C. Connection of the Priobskoe oil field with the gas main of gazprom and delivery of the apg into the national gas distribution system without prior processing.</p> <p>CL 03 description of alternative 3 in PDD v.1.1 is not specific. In fact it covers three scenarios with different technical measures, different investments and different emission sources. Its rejection is not justified transparently.</p> <p>Sub point “c” is not feasible as NG main pipeline does not possess sufficient intake capacity for APG.</p> <p>Please demonstrate that the project activity does not lead to any decrease in activity outside the project boundary.</p> <p>Closed on the basis of alternative 3 revision made in PDD v. 1.3</p> <p>SV 03 basic circumstances and features taken into account for decision to launch the project will be discussed on site.</p> <p>Site visit results: As per interview held on site the project faced the financial difficulties at the stage of cs 1 project design development, that could be overcome only with help of additional financing from eru realization.</p> <p>Project does not lead to any reduction of activity outside project boundary as th yb gpp possess enough capacity to receive the volume of apg from priobskoe oilfield without any reduction in supply from other sites.</p>		



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24	If selected elements or combinations of approved CDM methodologies or methodological tools for baseline setting are used, are the selected elements or combinations together with the elements supplementary developed by the project participants in line with 23 above?	N/A		
25	If a multi-project emission factor is used, does the PDD provide appropriate justification?	The Ural Consolidated Energy System (UCES) emission factor is used. The values of EF are taken from the baseline study “Development of the electricity carbon emission factors for Russia” 2010 sponsored by EBRD and validated by TUV Sud.		OK
Approved CDM methodology approach only Paragraphs 26(a) – 26(d) Not applicable				
Additionality				
JI specific approach only				
28	Does the PDD indicate which of the following approaches for demonstrating additionality is used? (a) Provision of traceable and transparent information showing the baseline was identified on the basis of conservative assumptions, that the project scenario is not part of the identified baseline scenario and that the project will lead to emission reductions or enhancements of removals; (b) Provision of traceable and transparent information that an AIE has already positively determined that a comparable project (to be) implemented under comparable circumstances has additionality;	PDD explicitly indicates that the additionality of the project is demonstrated by following a JI-specific approach. Approach (a) in paragraph 2 of the Annex I to the “Guidance on Criteria for Baseline Setting and Monitoring (Version 2)” has been selected.		OK



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	(c) Application of the most recent version of the "Tool for the demonstration and assessment of additionality. (allowing for a two-month grace period) or any other method for proving additionality approved by the CDM Executive Board".			
29 (a)	Does the PDD provide a justification of the applicability of the approach with a clear and transparent description?	It is justified in the PDD that the approach chosen for additionality proof was selected in accordance with requirement 2(a) of Annex 1 of JI Guidance on criteria for baseline setting and monitoring, version 02.		
29 (b)	Are additionality proofs provided?	<p>The additionality is substantiated by using an investment analysis.</p> <p>Alternatives #1 (Flaring of APG at Priobskoe oil field and consumption of electricity purchased from UES Urals grid) and #2 (the project not being registered as JI) are deemed to be viable and left for further analysis.</p> <p>Barrier analysis was applied as the next step to prove the additionality.</p> <p>Barrier No.1 was identified as Associated petroleum gas price regulation and price disproportions.</p> <p>Generally it is stated that utilization of APG is not profitable for oil companies due to high expenses for APG recovery and transportation and governmental regulation of APG prices.</p> <p>CAR 03 Alternative #3 was rejected on the basis of economical reasons similar to that existed for alt. 2. Nonetheless its unfeasibility was not demonstrated through investment analysis. Please justify.</p>	CAR 03 CL 04 CL 05 CL 06	OK OK OK OK



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Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
		<p>CL 04 Please clarify selection of discount rate . Closed on the basis of documents provided.</p> <p>CL 05 Following description given in sec. B.2 evaluation of economical attractiveness was by LLC "RN-Uganskneftegas" in the beginning of 2010. Please demonstrate the relevance and appropriateness of this analysis at the time of decision making. Closed on the basis of revision of investment analysis</p> <p>CL 06 The State regulated tariffs on APG sold to GPP was disaffirmed on 09.02.2008 by Governmental Decree #59. Please substantiate the relevance of barrier for the rest period. Closed on the basis of review of external information sources confirming the relevance of barrier identified.</p> <p>SV 04 Input values for investment analysis are confirmed through the information provided by financial dept of Rosneft</p> <ul style="list-style-type: none"> • Discount rate – 10%, • Total capital costs of the proposed project (27, bln RUB), • APG sale price, RUB per thousand m3 • Stable gas condensate sale price • Electricity purchase price, RUB/KWh 		



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Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
		<ul style="list-style-type: none"> Costs of gross APG extraction, RUB per thousand m3 Cost of production and sale of gas condensate, RUB/t 		
29 (c)	Is the additionality demonstrated appropriately as a result?	<p>CL 07 The Common Practice Analysis does not provide any information on the similar activities realized without being registered as JI. Please indicate if any activity similar to the project in terms of technology, scale, financial environment etc. occurs in the region/country presently (projects claiming JI status shall not be considered), and if so, please, demonstrate how their occurrence does not contradict the claim of additionality.</p> <p>Closed on the basis of results of site visit and revision made in PDD v. 1.3</p>	CL 07	OK
30	If the approach 28 (c) is chosen, are all explanations, descriptions and analyses made in accordance with the selected tool or method?	N/A		
Approved CDM methodology approach only_ Paragraphs 31(a) – 31(e)_Not applicable				
Project boundary (applicable except for JI LULUCF projects				
JI specific approach only				
32 (a)	Does the project boundary defined in the PDD encompass all anthropogenic emissions by sources of GHGs that are: (i) Under the control of the project participants? (ii) Reasonably attributable to the project? (iii) Significant?	<p>The project boundary defined in the PDD shall encompass all anthropogenic emissions by sources of GHGs that are:</p> <ul style="list-style-type: none"> (i) Under the control of the project participants. (ii) Reasonably attributable to the project. (iii) Significant. <p>These are the project emissions from: - power consumption by the CS-1, CS-2, GTI and compressor stations of final separation process,</p>	CAR 04 CL 08 CL 09	OK OK OK



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		- combustion of APG at the GTPP, - dry gas consumption by GTPP, and the baseline emissions: CO2 and CH4 emissions from APG flaring, CO2 emissions from fossil fuel combustion at the grid connected power plants to produce the equivalent amount of power that is substituted by GTPP. CAR 04 Natural gas combustion at the GTPP represents separate project emission source, independent from APG consumption. Please adjust table b.3.1 accordingly. Closed on the basis of revision made in sec. B.3 of PDD v. 1.3 CL 08 Table B.3.1 does not leave a clarity on what amount of electricity is considered for baseline emission estimation. Please clarify whether the own electricity consumption is accounted for the baseline emission estimation. Closed on the basis of explanation provided CL 09 Please provide information on the fugitive methane emissions from APG transportation and processing. Closed on the basis of explanation provided		
32 (b)	Is the project boundary defined on the basis of a case-by-case assessment with regard to the criteria referred to in 32 (a) above?	Project boundary is defined on the basis of case-by-case analysis (not always quantitative) of emission sources. SV 05 Check the project boundary. Site visit results: As per review of air pollutant emission estimation made in the draft of Emission Limits attributable to the proposed project activity total	Pending SV results	OK



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		amount of methane leaks from APG recovery, transportation, pre-treatment and combustion at the GTPP will not exceed 64 t/y or 1200 t CO2 eq./ per year. Hence this source can be neglected. Emergency power source at the CS -1 diesel power unit. Total consumption of diesel is less than 5 t per year. Hence this source found negligible.		
32 (c)	Are the delineation of the project boundary and the gases and sources included appropriately described and justified in the PDD by using a figure or flow chart as appropriate?	The delineation of the project boundary and the gases and sources are appropriately described and justified in figure B.3.1.	OK	OK
32 (d)	Are all gases and sources included explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified?	CL 10 Please indicate the project and baseline emission sources at figure B.3.1. Closed on the basis of revision made in PDD v.1.4.	CL 10	OK
Approved CDM methodology approach only_ Paragraph 33_ Not applicable				
Crediting period				
34 (a)	Does the PDD state the starting date of the project as the date on which the implementation or construction or real action of the project will begin or began?	CAR 05 Sec. C.1 is not specific on the starting date of the project. According to the JISC's definition of starting date as the earliest action to implement the project which the commissioning of CS-1 could not be (investment and construction works took place earlier). Please revise the starting date according provide the documentary evidence to confirm this date. Starting date was determined as the date when Gas Program of Rosneft implying the APG utilization at Priobskoe Oilfield was adopted Closed.	CAR 05	OK



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34 (a)	Is the starting date after the beginning of 2000?	The project started after 2000 y.	OK	OK
34 (b)	Does the PDD state the expected operational lifetime of the project in years and months?	Operational lifetime is defined as 22 years or 254 months. SV 06 Collect the evidence for starting date, operation lifetime and starting date of crediting period. Starting date of the project is the adoption of Rosneft gas programme. Pending the date of its adoption. Operation lifetime of GTPP (the main equipment in the APG utilization project) is confirmed through the interview with RN energo representatives. Emission reduction start 01/01/2008 was confirmed by the fact of APG delivery to the YB GPP.	pending	OK
34 (c)	Does the PDD state the length of the crediting period in years and months?	The length of crediting period is defined as 5 years or 60 months. Starting from 01/01/2008.	pending	OK
34 (c)	Is the starting date of the crediting period on or after the date of the first emission reductions or enhancements of net removals generated by the project?	To be checked on site SV 06	pending	OK
34 (d)	Does the PDD state that the crediting period for issuance of ERUs starts only after the beginning of 2008 and does not extend beyond the operational lifetime of the project?	Operation lifetime is to be checked on site.	pending	OK
34 (d)	If the crediting period extends beyond 2012, does the PDD state that the extension is subject to the host Party approval? Are the estimates of emission reductions or enhancements of net removals presented separately for those until 2012 and those after 2012?	PDD explicitly states that the extension of crediting period till 2020 is the subject for Host Country approval.	OK	OK



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Monitoring plan				
35	Does the PDD explicitly indicate which of the following approaches is used? - JI specific approach; - Approved CDM methodology approach.	It is explicitly indicated that a JI specific approach is chosen.	OK	OK
JI specific approach only				
36 (a)	Does the monitoring plan describe: - All relevant factors and key characteristics that will be monitored? - The period in which they will be monitored? - All decisive factors for the control and reporting of project performance?	The monitoring plan describes all factors and parameters affecting both the project and the baseline emissions. CL 11 The period of monitoring is not determined. Note: Calculation of ER does not include 2009 y. As the ER from APG supply to YB GTPP pertains to another JI project. Please clarify whether the monitoring period for electricity consumption by CS 1 includes 2009. Project performance can be assessed on the basis of the parameters of APG recovery and power generation at GTPP	CL11	OK
36 (b)	Does the monitoring plan specify the indicators, constants and variables used that are reliable, valid and provide transparent picture of the emission reductions or enhancements of net removals to be monitored?	The parameters, indicators, constants and variables used for ER are supported by reliable evidence. CL 12 (and SV 07) Please explain the application of default value for NCV of NG instead of regular monitoring data. Please provide the evidence to confirm the value used for ex-ante calculation. Site visit results: NCV for NG supplied to the GTPP is confirmed through the review of NG lab testing certificates /11/. NG is not intended to be used at GTPP after the start of CS 2 supplying APG (4 th quarter 2011). CL 11 and 12 are closed on the basis of site visit results and revision	CL 12	OK



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		made in PDD v. 1.4		
36 (b)	If default values are used: – Are accuracy and reasonableness carefully balanced in their selection? – Do the default values originate from recognized sources? – Are the default values supported by statistical analyses providing reasonable confidence levels? – Are the default values presented in a transparent manner?	All default values with reliable and verifiable reference are presented in table D.1-1 in transparent manner.		OK
36 (b) (i)	For those values that are to be provided by the project participants, does the monitoring plan clearly indicate how the values are to be selected and justified?	PDD describes the method of data collection for all monitoring parameters.		OK
36 (b) (ii)	For other values, – Does the monitoring plan clearly indicate the precise references from which these values are taken? – Is the conservativeness of the values provided justified?	The monitoring plan specifies the indicators, constants and variables used that are reliable, valid and provide transparent picture of the emission reductions to be monitored.		OK
36 (b) (iii)	For all data sources, does the monitoring plan specify the procedures to be followed if expected data are unavailable?	CL 13 Please specify procedures to be followed if monitoring data sources are unavailable. Closed on the basis of explanation provided SV 08. Monitoring system reliability should be checked on site. Site visit results: The reliability of Monitoring system is ensured by application of certified and accredited Monitoring Methods in accordance with applica-	CL13 CL 18	OK OK



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		<p>ble national Standards /31/, certified meters and equipment /12/, calibrated in accordance with standard procedure /25/, /26/.</p> <p>CL 18 (raised on the basis of site visit results) Power consumption by Booster Pump stations at OTTW 7; PWDU 285 and in the future at OTTW -8 and PWDU 201 is estimated on the basis of the intake power capacity of equipment (which is constant) and operational hours. Please detail the system to estimate the operational hours and describe relevant QA/QC measures to ensure reliability of Operational hours measurement. Monitoring plan shall be updated accordingly.</p> <p>PDD v. 1.4 was updated. CL was closed.</p>		
36 (b) (iv)	Are International System Unit (SI units) used?	International System Units (SI units) are used.		OK
36 (b) (v)	Does the monitoring plan note any parameters, coefficients, variables, etc. that are used to calculate baseline emissions or net removals but are obtained through monitoring?	Table D1-1 contains all fixed parameters.		OK
36 (b) (v)	Is the use of parameters, coefficients, variables, etc. consistent between the baseline and monitoring plan?	There is consistency between parameters, coefficients, variables, etc. used in baseline and monitoring plan.		OK
36 (c)	Does the monitoring plan draw on the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring"?	Yes, the monitoring plan draw on the list of standard variables.		OK
36 (d)	Does the monitoring plan explicitly and clearly distinguish: (i) Data and parameters that are not monitored	Description of the monitoring plan given in Section D.1 explicitly and clearly distinguishes the parameters which are to be monitored and those fixed ex-ante and available at the stage of determination includ-	Pending	OK



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	<p>throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), and that are available already at the stage of determination?</p> <p>(ii) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination?</p> <p>(iii) Data and parameters that are monitored throughout the crediting period?</p>	<p>ing all default values:</p> <ul style="list-style-type: none"> • CO₂ emission factor for electricity supplied to UES Urals grid, t CO₂/MWh • Efficiency of combustion of treated APG at GTPP, dimensionless • Lower calorific value of natural gas, MJ/m³ • CO₂ emission factor of natural gas, t CO₂/GJ • APG flaring efficiency, dimensionless • Density of methane under standard conditions (P = 101.3 kPa, T = 293.16° K (+20° C), kg/m³ • Global warming potential of methane, t CO₂/t CH₄, dimensionless • CO₂ density under standard conditions <p>CO₂ emission factor for electricity supplied to UES Urals grid, t CO₂/MWh is indicated as the fixed parameter not available at the stage of determination.</p> <p>Other parameters are subject for monitoring through the crediting period.</p> <p>Pending a response to CL 12.</p>		
36 (e)	Does the monitoring plan describe the methods employed for data monitoring (including its frequency) and recording?	Yes, the methods used and data collection frequency and recording are clearly defined in the monitoring plan tables D 1.1.1 and D.1.1.3.		OK
36 (f)	Does the monitoring plan elaborate all algorithms and formulae used for the estimation/calculation of baseline emissions/removals and project emissions/ removals or direct monitoring of emission reductions from the project,	<p>These are Formulae for baseline emissions in Section D.1.1.4, and for project emissions in Section D.1.1.2. Leakage are reasonably neglected (refer to Section D.1.3.2).</p> <p>CAR 06 The methane emissions from incomplete combustion of APG</p>	CAR 06	OK



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	leakage, as appropriate?	at the flaring are overestimated as they are calculated on the basis of total carbon content of APG including the carbon bounded in other than methane hydrocarbons. Application of flare efficiency coefficient to all components of APG was justified in PDD v. 1.4 CAR 06 was closed.		
36 (f) (i)	Is the underlying rationale for the algorithms/formulae explained?	Pending response to CAR 06	Pending	OK
36 (f) (ii)	Are consistent variables, equation formats, subscripts etc. used?	Consistent variables, equation formats, subscripts are used. pending a response to CL 13.	Pending	
36 (f) (iii)	Are all equations numbered?	Yes.		OK
36 (f) (iv)	Are all variables, with units indicated defined?	Yes,		OK
36 (f) (v)	Is the conservativeness of the algorithms/procedures justified?	Pending a response to CAR 06.	Pending	OK
36 (f) (v)	To the extent possible, are methods to quantitatively account for uncertainty in key parameters included?	SV 09. Check the uncertainty level for estimation of key parameters against the meters certificates. Confirmed through the review of of calibration certificate submitted by RN /26/ Pending a response to CL 18	Pending	OK
36 (f) (vi)	Is consistency between the elaboration of the baseline scenario and the procedure for calculating the emissions or net removals of the baseline ensured?	There is consistency between the elaboration on the baseline scenario and calculating the baseline emission in the spreadsheet.		OK
36 (f) (vii)	Are any parts of the algorithms or formulae that are not self-evident explained?	Pending a response to CAR 06.	Pending	OK
36 (f) (vii)	Is it justified that the procedure is consistent with	SV 10 Check if the monitoring is in line with current operational rou-		OK



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	standard technical procedures in the relevant sector?	<p>tines. Yes, the most monitoring parameters are collected in accordance with the applicable national monitoring standards. All data on electricity production and consumption are kept in the internal database ASKUE.</p>		
36 (f) (vii)	Are references provided as necessary?	<p>SV 11. Check the original data sources for all parameters used for monitoring. The data used for ex-ante calculation are checked against authentic sources. All data found reliable.</p> <p>The power consumption by booster stations are calculated on the basis of power intake capacity of boosters and operational hours records the data on operational hours for 2010 at OTTW 7 were provided by Energy department of RN Yuganskneftegas /43-45/</p>	Pending	OK
36 (f) (vii)	Are implicit and explicit key assumptions explained in a transparent manner?	Pending a response to CAR 06	Pending	
36 (f) (vii)	Is it clearly stated which assumptions and procedures have significant uncertainty associated with them, and how such uncertainty is to be addressed?	N/A		OK
36 (f) (vii)	Is the uncertainty of key parameters described and, where possible, is an uncertainty range at 95% confidence level for key parameters for the calculation of emission reductions or enhancements of net removals provided?	<p>The uncertainty is assessed in Table D.2 Pending a result of site visit.</p>	Pending	OK
36 (g)	Does the monitoring plan identify a national or international monitoring standard if such stan-	Technical Standards GOST 23781, GOST 22667, GOST 22387.2, and GOST 22387.2. are referred to for chemical tests used for APG	Pending	OK



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	Standard has to be and/or is applied to certain aspects of the project? Does the monitoring plan provide a reference as to where a detailed description of the standard can be found?	quality monitoring. SV 12 Laboratory accreditation and reliability of testing is to be checked on site. Laboratory accreditation certificate was provided		
36 (h)	Does the monitoring plan document statistical techniques, if used for monitoring, and that they are used in a conservative manner?	N/A		
36 (i)	Does the monitoring plan present the quality assurance and control procedures for the monitoring process, including, as appropriate, information on calibration and on how records on data and/or method validity and accuracy are kept and made available upon request?	QC/QA procedures are specified in PDD Section D.2. SV 13. Calibration procedures will be checked on site. Calibration is being done in accordance with national monitoring requirements. Calibration schedule covers all meters used for the monitoring /25/. Calibration certificates were provided /26/.	Pending	OK
36 (j)	Does the monitoring plan clearly identify the responsibilities and the authority regarding the monitoring activities?	The authority/responsibility for data collection and reporting is described in PDD Section D.3, Fig. D.3.1. SV 14. The authority/ responsibility distribution for data collection, achieving and storing shall be checked on site through the personal manuals of persons involved in the monitoring process. The company does not have a special monitoring procedure. The main authority for the final collection of monitoring data pertaining APG supply, APG composition and energy consumption by buster stations lies on the RN Uganskneftegas. Data from Energy production by GTPP is being collected by RN Energo.	Pending	OK



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Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
36 (k)	Does the monitoring plan, on the whole, reflect good monitoring practices appropriate to the project type? If it is a JI LULUCF project, is the good practice guidance developed by IPCC applied?	Pending site visit results. The monitoring plan is developed in accordance with relevant national standards and reflects good monitoring practice. The personal involved into monitoring is provided with special qualification trainings on the regular basis /40/, /41/.	Pending	OK
36 (l)	Does the monitoring plan provide, in tabular form, a complete compilation of the data that need to be collected for its application, including data that are measured or sampled and data that are collected from other sources but not including data that are calculated with equations?	Pending a response to CL 12	Pending	OK
36 (m)	Does the monitoring plan indicate that the data monitored and required for verification are to be kept for two years after the last transfer of ERUs for the project?	CL 14 Please indicate the monitoring data storage time in the PDD. Closed on the basis of revision made in PDD v. 1.4.	CL 14	OK
37	If selected elements or combinations of approved CDM methodologies or methodological tools are used for establishing the monitoring plan, are the selected elements or combination, together with elements supplementary developed by the project participants in line with 36 above?	N/A		
Approved CDM methodology approach only Paragraphs 38(a) – 38(d) Not applicable				
Applicable to both JI specific approach and approved CDM methodology approach Paragraph 39 Not applicable				
Leakage				
JI specific approach only				



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Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
40 (a)	Does the PDD appropriately describe an assessment of the potential leakage of the project and appropriately explain which sources of leakage are to be calculated and which can be neglected?	Neglecting of leakage effect associated with methane emissions from fossil fuels recovery processing and transportation is justified in the PDD as the project implies reduction of fossil fuel combustion at the grid connected power plants due to commissioning of GTPP. CL 15 please provide evidence to confirm negligibility of leakage effect caused by downstream transportation of APG processing products in 2008 y. Leakage effect from downstream transportation of APG processing products would be compensated by transportation of equal amount of NG that would have been used in the absence of proposed project activity.	CL 15	OK
40 (b)	Does the PDD provide a procedure for an ex ante estimate of leakage?	No, pending CL 15.	Pending	OK
Approved CDM methodology approach only Paragraph 41 Not applicable				
Estimation of emission reductions or enhancements of net removals				
42	Does the PDD indicate which of the following approaches it chooses? (a) Assessment of emissions or net removals in the baseline scenario and in the project scenario (b) Direct assessment of emission reductions	Assessment of emissions in the baseline scenario and in the project scenario is chosen. Option 1 is chosen.		OK
43	If the approach (a) in 42 is chosen, does the PDD provide ex ante estimates of: (a) Emissions or net removals for the project scenario (within the project boundary)? (b) Leakage, as applicable? (c) Emissions or net removals for the baseline scenario (within the project boundary)?	PDD provides ex ante estimates of: Emissions for the project scenario; Emissions for the baseline scenario; Emission reductions adjusted by leakage. Leakages are not considered. Pending a response to CL15.	Pending	OK



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Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
	(d) Emission reductions or enhancements of net removals adjusted by leakage?			
44	If the approach (b) in 42 is chosen, does the PDD provide ex ante estimates of: (a) Emission reductions or enhancements of net removals (within the project boundary)? (b) Leakage, as applicable? (c) Emission reductions or enhancements of net removals adjusted by leakage?	N/A		OK
45	For both approaches in 42 (a) Are the estimates in 43 or 44 given: (i) On a periodic basis? (ii) At least from the beginning until the end of the crediting period? (iii) On a source-by-source/sink-by-sink basis? (iv) For each GHG? (v) In tones of CO2 equivalent, using global warming potentials defined by decision 2/CP.3 or as subsequently revised in accordance with Article 5 of the Kyoto Protocol? (b) Are the formula used for calculating the estimates in 43 or 44 consistent throughout the PDD? (c) For calculating estimates in 43 or 44, are key factors influencing the baseline emissions or removals and the activity level of the project and the emissions or net removals as well as risks	ER estimates are given on the periodic basis, from the beginning until the end of the crediting period (excluding 2009 when APG supply to YB GPP claims ERU under another JI project), in tones of CO2 equivalent. The formulae used in PDD are consistent. Key factors influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project are taken into account. Default values for emission factors are taken from 2006 IPCC and other reliable sources. The annual average of estimated emission reductions calculated by dividing the total estimated emission reductions over the crediting period by the total months of the crediting period and multiplying by twelve. • The values of Volume fraction of APG components in the ER calculation excel spreadsheet are confirmed by the APG composition testing results [filename: 02. Компонентный состав ПНГ поставляемого на ЮБ ГПК (ЦСПТГ-4).pdf; Компонентный состав газа	CAR 07	OK



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Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
	<p>associated with the project taken into account, as appropriate?</p> <p>(d) Are data sources used for calculating the estimates in 43 or 44 clearly identified, reliable and transparent?</p> <p>(e) Are emission factors (including default emission factors) if used for calculating the estimates in 43 or 44 selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice?</p> <p>(f) Is the estimation in 43 or 44 based on conservative assumptions and the most plausible scenarios in a transparent manner?</p> <p>(g) Are the estimates in 43 or 44 consistent throughout the PDD?</p> <p>(h) Is the annual average of estimated emission reductions or enhancements of net removals calculated by dividing the total estimated emission reductions or enhancements of net removals over the crediting period by the total months of the crediting period and multiplying by twelve?</p>	<p>KС-1 с 2008г.xls; Компонентный состав УПГ август 2010г.xls, Компонентный состав УПГ апрель 2011г.xls; Компонентный состав УПГ июль 2010г.xls; Компонентный состав УПГ июнь 2010г.xls; Компонентный состав УПГ май 2011г.xls].</p> <ul style="list-style-type: none"> Volume of APG transferred to YB GPP is validated on the basis of the review of internal reports from YB GPP [filename: 01. Поставка на ЮБ ГПК 2008г., 2010г., 1 кв. 2011г.] Electricity consumption is validated on the basis of information provided by PP. <p>CAR 07 Comments to calculation approach for Baseline emissions from flaring.</p> <p>1/Flare efficiency value is not applicable to CO2 containing in APG. It would not be oxidized during flaring.</p> <p>2/ Calculation of emission factor does not consider the density of APG components calculated on the basis of molecular weights and molar volume at standard conditions. Simulations made with calculation of emission factor as</p> $EF = \sum_i fV_i * \rho_i * NC_i * FE * \frac{44.010}{MM_i}$ <p>Where:</p> <p>fV_i - volumetric fraction of APG component i;</p>		



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Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
		$\rho_i = \frac{MM_i}{Mv}$ - density of APG component <i>i</i> $Mv = \frac{8.3144721 * T}{P} = 24.0551 \text{ l/mol}$ - molar volume of gas under normal conditions (T=293.5 K, P=101.325 KPa); MM_i - Molecular weight of APG component <i>i</i> ; FE - flare efficiency (=0.98 for hydrocarbons and =1.00 for CO2); NC_i - carbon content in APG component <i>i</i> ; gives lower values for emission factors (see comments in ER excel-sheet). Closed as the difference are negligible and coming from the difference in the different estimation of CO2 density given in the national standard		
46	If the calculation of the baseline emissions or net removals is to be performed ex post, does the PDD include an illustrative ex ante emissions or net removals calculation?	Illustrative ex-ante estimation of baseline emissions is made on the spreadsheet.		OK
Approved CDM methodology approach only Paragraphs 47(a) – 47(b) Not applicable Environmental impacts				



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Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
48 (a)	Does the PDD list and attach documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party?	<ul style="list-style-type: none"> - PDD Section E.1 lists the environmental impacts identified for the project as follows: - Short-term environmental impacts due to construction works; - Emissions into the atmosphere (air emissions) from operations main and auxiliary equipment; - Discharge of waste water from industrial and household consumption of drinking and industrial water; - Production of industrial and consumption waste as the result of industrial operations; - Noise and vibrations as the result of industrial operations. <p>All impacts were checked against EIA document. Its compliance to local legislation was supported by State Expertise conclusion.</p>		OK
48 (b)	If the analysis in 48 (a) indicates that the environmental impacts are considered significant by the project participants or the host Party, does the PDD provide conclusion and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party?	<p>All impacts were checked against EIA document. Its compliance to local legislation was supported by State Expertise conclusion</p>		OK
Stakeholder consultation				
49	If stakeholder consultation was undertaken in accordance with the procedure as required by the host Party, does the PDD provide: (a) A list of stakeholders from whom comments on the projects have been received, if any?	<p>Russian Federal Law 7-FZ "On Environmental Protection" cl. 13 para 2 requires stakeholders' comments to be considered in decision making process to start any activity potentially causing adverse environmental effect.</p>	CL 16	OK



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Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
	(b) The nature of the comments? (c) A description on whether and how the comments have been addressed?	Information on the proposed project activity was made publicly available through the official Rosneft official web site and annual Sustainable Development reports. Comments were invited through the web. CL 16 Please clarify if any comments were received from the local stakeholders, and if so how due account was taken on them. No comments were received as confirmed on site.		
Determination regarding small-scale projects (additional elements for assessment) Paragraphs 50 - 57 Not applicable				
Determination regarding land use, land-use change and forestry projects Paragraphs 58 – 64(d) Not applicable				
Determination regarding programmes of activities Paragraphs 66 – 73 Not applicable				



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Table 2 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
CAR 01. The project has no approvals by the Parties involved.	A.5		
CAR 02. Sec. A.5 PDD v.1.2 stays “The second approval for the project will be received in Netherlands”. Does it mean that Party B is Netherland? Please gain a consistency through the PDD on whether or not Party B is determined.	20	Party B is determined as Netherlands, which is indicated in table A.3.1. and in the section A.5. of the PDD, version 1.3 of 22/08/2011.	29/08/11 LV Netherlands consistently mentioned as Party B through PDD ver. 1.4. Closed.
CAR 03 Alternative #3 was rejected on the basis of economical reasons similar to that existed for alt. 2. Nonetheless its unfeasibility was not demonstrated through investment analysis. Please justify.	29 (b)	Alternative #3 has been specified as Connection of the Priobskoe oil field with the gas main of Gazprom and delivery of the APG into the national gas distribution system without prior processing. This alternative is possible from the technical side but due to the limited access to the integrated gas transporting system operated by Gazprom the investment analysis of the option was not prepared initially. The description of alternative 3 was revised in the PDD ver. 1.3. of 22/08/2011, pages 12,13.	29/08/11 LV Alternative 3 was revised. In PDD v. 1.3 and later versions this alternative is described as APG delivery to the gas main. The argumentation of its rejection was confirmed through the interview held with LLC Yuganskneftegas on site. Closed
CAR 04 Natural gas combustion at the GTPP represents separate project emission source, independent from APG consumption. Please adjust table b.3.1 accordingly.	32 (a)	The source “Emissions from the combustion of NG at the GTPP” is separately represented in the table B.3 of the PDD, version 1.3 of 22/08/2011, page 25.	29/08/11 NG consumption was indicated as separate emission source in PDD v. 1.3.



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Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
<p>CAR 05 Sec. C.1 is not specific on the starting date of the project. According to the JISC's definition of starting date as the earliest action to implement the project which the commissioning of CS-1 could not be (investment and construction works took place earlier). Please revise the starting date according provide the documentary evidence to confirm this date.</p>	34 (a)	The starting date of the project is defined as the data of approval of Gas programme of RN-Uganskneftegas – 23/03/2006. This is indicated in the PDD, version 1.3, page 27.	<p>Closed</p> <p>Starting date is determined on the basis of review of minutes of OJSC Rosneft investment committee meeting /49/ where the gas utilization program was adopted.</p> <p>Closed</p>
<p>CAR 06 The methane emissions from incomplete combustion of APG at the flaring are overestimated as they are calculated on the basis of total carbon content of APG including the carbon bounded in other than methane hydrocarbons.</p>	36 (f)	According to IPCC Guidelines (2006) Vol 2, Section 4, p. 4.45 the efficiency of flaring as 98%, the remaining 2% of APG is emitted directly to the atmosphere which causes the atmospheric emission of methane. The methane emissions from incomplete combustion of APG during flaring are calculated by multiplying 2% of APG, volume fraction of methane in APG (therefore hydrocarbons other than methane are not considered) and density of methane. This approach is applied for the definition of emission factor for methane released during flaring of treated APG, converted to CO ₂ -eq. as indicated in the PDD, version 1.3, formula D.1.1.4.-10, page 43. At the same time CO ₂ emissions for burning of APG in flare are calculated on the basis of 98% of remaining APG which is oxidized. So	<p>After revision made in PDD v. 1.3. p. 13 the methane emission from incomplete APG flaring is consistently considered as 2% of total volume. CO₂ emission is calculated on the basis of 98% of combustion efficiency.</p> <p>Closed</p>



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Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
		the methane emissions from incomplete combustion of APG at the flaring cannot be considered as overestimated.	
<p>CAR 07 Comments to calculation approach for Baseline emissions from flaring.</p> <p>1/Flare efficiency value is not applicable to CO2 containing in APG. It would not be oxidized during flaring.</p> <p>2/ Calculation of emission factor does not consider the density of APG components calculated on the basis of molecular weights and molar volume at standard conditions. Simulations made with calculation of emission factor as</p> $EF = \sum_i f v_i * \rho_i * N C_i * F E * \frac{44.010}{M M_i}$ <p>Where:</p> <p>$f v_i$ - volumetric fraction of APG component i;</p> $\rho_i = \frac{M M_i}{M v}$ <p>$M v = \frac{8.3144721 * T}{P} = 24.0551 \text{ kg/m}^3$ - molar volume of gas under normal conditions (T=293.15 K, P=101.325 KPa);</p>	45	<p>For the calculation of CO₂ emission factor for burning of APG ready for GTPP in gas turbines (project emissions) the efficiency of APG burning in GTPP is defined as 100%. At the same time for for the baseline emissions calculations the efficiency of APG burning in flare is 98%. As CO₂ indeed is not oxidized at the flare this approach is conservative one.</p> <p>The difference in the ERUs estimation using the proposed formulae and formulae in the PDD is caused only by the divergence in the determination of density of CO₂ by under normal conditions (T=293.15 K, P=101.325 KPa) fixed ex-ante. By the State standard GOST 8050-85 «Gaseous and liquid carbon dioxide» applied in the PDD the density of CO₂ is 1,839 kg/m³, while applying the molar volume of the CO₂ and atomic masses of carbon and oxygen the density of CO₂ shall be 1,829 kg/m³.</p> <p>Anyway the scale of difference of ERUs for 2008 (only this year is affected) is 4,529 tons CO₂ which consists 0.5% of our estimation for this year. According to the “Standard for ap-</p>	<p>29/08/11 LV</p> <p>1/ explanation accepted as conservative approach.</p> <p>2/It was demonstrated that the difference in EF calculation comes from difference in CO₂ density estimation determined on the basis of different docs. Referred GOST 8050-85 «Gaseous and liquid carbon dioxide” is reliable source.</p> <p>Resulting difference in CO₂ emission estimation is insignificant.</p> <p>Closed.</p>



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Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
<p>MM_i Molecular weight of APG component i;</p> <p>FE - flare efficiency (=0.98 for hydrocarbons and =1.00 for CO₂);</p> <p>NC_i - carbon content in APG component i;</p> <p>gives lower values for emission factors</p>		<p>plying the concept of materiality in verifications" adopted at twenty-second meeting of the JISC the materiality threshold (item B.4 (b)) is two percent with annual average emission reductions by sources amounting to 100.000 tones per year or more. Thus for considered project the threshold of materiality is 19,713 tones CO₂eq (which are 2% of emission reduction of 985,649 tones CO₂eq for 2008). Therefore taking into account the reliability of the State standard GOST 8050-85 «Gaseous and liquid carbon dioxide» as the source of data it is proposed to leave the subject without changes.</p>	
<p>CL 01 Please clarify the following points in sec. A.2:</p> <p>a/ Technical description of the proposed project activity in section A.2 does not describe sources of energy supply in the baseline and the project scenarios.</p> <p>b/ Heavy hydrocarbons extracted from APG at the GTI and YB GPP are used as fuel and raw material for upstream processing. Please indicate if the project affects the volume of oil recovered.</p> <p>c/ Sec. A.2 is not clear on the APG flows from left and right Ob's banks. Please make it clear in the description whether or not the APG flows from left-bank and</p>	A.2	<p>There are two emission sources under the baseline: 1) the flaring of APG at Priobskoe oil field; 2) consumption of electricity generated by UES Urals power plants. The second emission source is added in the PDD, version 1.3 of 22/08/2011, section A.2., page 3.</p> <p>The volume of heavy hydrocarbons extracted from APG at the GTI which is used as fuel and raw material for upstream processing is 64.000 tones. The volume of oil recovery at the Priobskoe oil field is approximately 29.6 million tones. So the project cannot affect sig-</p>	<p>29/08/11 LV</p> <p>a/ PDD v. 1.3. was updated with requested information.</p> <p>b/ the volume of condensate delivered to crude oil stream is confirmed through the interview with UNG representatives. No serious affection to the volume of oil recovery is recognized.</p> <p>c/ PDD v.1.3 consistently describes the project APG flows.</p> <p>d/ Starting date was reconsidered.</p> <p>The decision to complete the project</p>



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Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
<p>right-bank sides of oilfield are mixed. (Note: sec. A 4.2 stays that APG is transported to GTI and further to GTPP from both CS 1 and CS 2, a part of APG from CS 2 can be transported to CS 1. Further GTI (and finally GTPP) will have been supplied with APG from CS 1 until CS 2 is commissioned. APG surplus not consumed by GTPP will be transported from GTI to the oilfield).</p> <p>d/ PDD sec. A.2. states the project documentation for CS-1 was developed in 2003, whereas the decision to launch the project was adopted in 2006, starting date is determined as November 2007. Please describe the actions attributable to the project implementation being undertaken prior 2006.</p>		<p>nificantly the volume of oil recovered because the share of heavy hydrocarbons is 0.2% of oil extraction.</p> <p>The compressed and dewatered APG from CS-2 (the right-bank part of Priobskoe oil field) is supplied to GTI. After GTI the treated APG is supplied to GTPP as the main fuel. Excess of treated APG is supplied to the intake of CS-1 and then transported to YB GPP. During the first phase of the project the GTI will be used for treatment of gas coming from CS-1 of the left-bank part of Priobskoe oil field. The appropriate improvement was made in the PDD, version 1.3, Figures B.3.1., D.1.1., pages 26, 32.</p> <p>The development of technical design documentation for CS-1 has been started in 2003. From 2003 to 2006 the project implementation was suspended. And the final decision with technical solutions to launch the project was adopted in July 2006 – the data of Gas program approval.</p>	<p>was adopted in 2006 by Rosneft. Closed</p>
<p>CL 02 Following description at p. 14 PDD v. 1.2 all carbon from APG (100%) is converted to CO₂ and then 2% is converted to methane. Please gain clarity in</p>	23	<p>Based on measured volume and chemical composition of APG supplied to YB GPP of OJSC "Sibur" the weight of carbon was calcu-</p>	<p>29/08/11 LV 98% flaring efficiency is consistently considered through the PDD.</p>



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the description on what percentage of carbon is converted to CO ₂ (it must be 98%) and to methane.		lated. It was then converted to equivalent amount of CO ₂ to be released to the atmosphere during flaring of this gas taking the account that the efficiency of APG burning in flare is 98%. It is added in the PDD, version 1.3 of 22/08/2011, page 13.	Closed on the basis of the review of PDD v.1.3. Closed
<p>CL 03 Description of Alternative 3 is not specific. In fact it covers three scenarios with different technical measures, different investments and different emission sources. Its rejection is not justified transparently.</p> <p>Sub point "C" is not technically feasible due to strict technical requirements for APG supplied into gas mains operated by Gasprom.</p> <p>Please demonstrate that the Project activity does not lead to any decrease in activity outside the project boundary.</p>	23	Alternative #3 has been specified as Connection of the Priobskoe oil field with the gas main of Gazprom and delivery of the APG into the national gas distribution system without prior processing. This alternative is technically feasible. Qualitative characteristics of APG from Priobskoe oil field meet the requirements of Gazprom for the gas supplied to the integrated gas transporting system. As a result of project implementation the most part of APG of Priobskoe oil field will be supplied to YB GPP. The capacity of YB GPP after its expansion in 2009 is 3 – 3.5 billion m ³ APG per year* this is rather more than the annual delivery of APG from oil fields, including Priobskoe. The YB GPP is underloaded.	29/08/11 Alternative 3 is reconsidered in PDD v.1.3. Now it includes the option of APG supply to NG gas main. Closed
CL 04 Please clarify selection of discount rate.	29 (a)	The used discount rate is approved by the President of Rosneft for economic analysis as a part of the Principles for the formation of	Discount rate was officially confirmed by the letter from financial department of Rosneft /39/

* <http://www.tyumen.sibur.ru/content/view/4/13/>



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		scenery conditions. The appropriate evidence has been provided to AIE.	Closed
CL 05 Following description given in sec. B.2 evaluation of economical attractiveness was by LLC “RN-Uganskneftegas” in the beginning of 2010. Please demonstrate the relevance and appropriateness of this analysis at the time of decision making.	29 (a)	The evaluation of economical attractiveness has been revised in the PDD, section B.2., version 1.3 of 22/08/2011. Currently it indicates the economic indexes since the time of decision making (2006).	Revision was made in the PDD and the Investment analysis relevant at the moment of decision making was provided to AIE. Closed.
CL 06 The State regulated tariffs on APG sold to GPP was disaffirmed on 09.02.2008 by Governmental Decree #59. Please substantiate the relevance of barrier for the rest period.	29 (a)	Despite of the fact that the State regulated tariffs on APG sold to GPP were disaffirmed on 09.02.2008 by Governmental Decree #59 the price for APG remained practically stable. At the same time the penalties for the gas flaring were quite low (50 RUB per ton of methane within the maximum permissible emission limit and 250 RUB per ton of methane for emissions within the temporary approved emission limit). Thereby “Associated petroleum gas price regulation and price disproportions” has been a constraint for Rosneft.	The relevance of this statement has been confirmed through the review of official report by Russian Federation Council /47/. http://www.council.gov.ru/print/publications_sf/2009/03/item291.html Closed
CL 07 The Common Practice Analysis does not provide any information on the similar activities realized without being registered as JI. Please indicate if any activity similar to the project in terms of technology, scale, financial environment etc. occurs in the region/country presently (projects claiming JI status shall not be considered), and if so, please, demonstrate how	29 (c)	The project of APG utilization at Priobskoe oil field is unique by the scale and complexity. No similar projects implemented without JI mechanism were identified. The project is first of its kind which together with results of investment analysis and barrier analysis constitutes a proof of additionality. The appropriate infor-	The project is first of its kind due to its scale and complexity. This information has been confirmed through the interview with RN UNG held on site. Closed



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Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
their occurrence does not contradict the claim of additionality.		mation has been provided in the PDD, version 1.3 of 22/08/2011.	
CL 08 Table B.3.1 does not leave a clarity on what amount of electricity is considered for baseline emission estimation. Please clarify whether the own electricity consumption is accounted for the baseline emission estimation.	32 (a)	<p>The main source of emissions under the baseline is consumption of electricity generated by UES Urals power plants by Uganskneftegas for oil production. We assume that the net supply of electricity of Priobskaya GTPP under the project scenario is equal to the supply of electricity generated by UES Urals power plants taking in account the transportation and distribution losses. The net supply of electricity of Priobskaya GTPP is total electricity generation minus electricity consumption for own needs of GTPP.</p> <p>At the same time there is no notion "own electricity consumption" in the JI project context for the baseline as APG was flared and oil production infrastructure is not affected by the project implementation.</p>	Closed on the basis of explanation provided.
CL 09 Please provide information on the fugitive methane emissions from APG transportation and processing.	32 (a)	According to data of actual emissions (the penalties for impact on the environment based on actual emissions) the annual amount of methane emissions is 17.052 tons per 1 and 2 quarters of 2011. These emissions define the fugitive methane emissions from APG transportation and processing. Considering the commissioning of CS-2 the fugitive methane	Confirmed through the review of environmental fee report /.



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		emissions from APG transportation and processing can be estimated as 60 tons CH ₄ per year or 1260 tons in terms of CO ₂ which is less than 2,000 tones of CO ₂ equivalent and according to item 14 (iii) of the Guidance for baseline setting and monitoring, version 02 should be considered as not significant.	
CL 10 Please indicate the project and baseline emission sources at figure B.3.1.	32 (d)	The respective emissions sources has been provided in the revised Table B.3.1. in the PDD, version 1.3 of 22/08/2011.	Table B.3.1 presents all emission sources in transparent manner. Closed
CL 11 The period of monitoring is not determined. Note: Calculation of ER does not include 2009 y. As the ER from APG supply to YB GTPP pertains to another JI project. Please clarify whether the monitoring period for electricity consumption by CS 1 includes 2009.	36 (a)	The period of monitoring is 2008, 2010–2012. Year 2009 is not included into the monitoring period of this project because it fully relates to the approved JI project “Processing of associated petroleum gas at Yuzhno-Balyksky gas processing plant” and no ERUs are generated. OJSC “Sibur” has passed necessary JI procedures and obtained an approval from the Ministry of Economic Development of the Russian Federation (Designated Focal Point) to implement a Joint Implementation project “Processing of associated petroleum gas at Yuzhno-Balyksky gas processing plant”.	Electricity consumption by CS 1 in 2009 is no considered as project emissions as no APG was supplied to GTPP. Accepted
CL 12 Please explain the application of default value for NCV of NG instead of regular monitoring data. Please provide the evidence to confirm the value used	36 (b)	The value for NCV of NG was reported in the monthly reports “Indicators of Quality of Natural Gas”. Chemical composition of natural gas	Bearing in mind low variation of NG’s NCV and its application as back-up fuel only it seems acceptable to use



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for ex-ante calculation.		remains fairly stable, and the lower calorific value has not changed since September of 2010. It should be noted that natural gas is reserve fuel for GTPP and in 2011 after commissioning of the second line of GTI the GTPP shall fully operate on APG.	fixed value. Closed.
CL 13 Please specify procedures to be followed if monitoring data sources are unavailable.	36 (b) (iii)	The monitoring period for year 2008 and 2010 has been finished and all relevant data sources have been provided to AIE. The main monitoring source for years 2011-2012 relates to electricity output by Priobskaya GTPP and electricity consumption by CS-1, CS-2, GTI, compressors of the final APG separation stages (TAKAT). For Priobskaya GTPP company has implemented the system of automated commercial accounting of electricity (ASKUE) which is connected to the Tumenenergo dispatch operator of the grid. Therefore relevant data are stored in independent places. Electricity consumption by CS-1, CS-2 and GTI is planned to automatically record and store in the system of automated technical accounting of electricity (ASTUE) which is to be operational since October 2011. Both systems ensure the reliable conservation of the data sources for GHG emissions monitoring for the project.	The reliability of monitoring system found sufficient to ensure availability of monitoring data through the crediting period.



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<p>CL 14 Please indicate the monitoring data storage time.</p>	36 (l)	<p>All relevant monitoring data will be stored at least 2 years after the last transfer of ERUs for the project (i.e. until 30th April 2015). The indication has been added at page 49 of the PDD, version 1.3 of 22/08/2011. The appropriate internal procedure will be officially approved by RN-Uganskneftegas before initial verification scheduled for autumn 2011.</p>	<p>PDD v. 1.3 has been updated respectively.</p> <p>FAR 01 The officially approved monitoring procedure will be checked at the stage of verification.</p>
<p>CL 15 please provide evidence to confirm negligibility of leakage effect caused by downstream transportation of APG processing products in 2008 y.</p>	40 (a)	<p>The products of APG processing in 2008 are dry stripped gas and broad fraction of light hydrocarbons.</p> <p>In the absence of APG utilization the natural gas would be produced at the gas oil fields instead of dry stripped gas and light hydrocarbons would be produced from oil during its processing.</p> <p>While specific leakage effects are hard to estimate it is evident that technological chain for natural gas and oil production and distance of transportation is longer than direct APG processing therefore the leakages shall be higher in the baseline.</p> <p>Conservatively they have been considered negligible.</p>	<p>Ok explanation acceptable</p> <p>Closed</p>
<p>CL 16 Please clarify if any comments were received from the local stakeholders, and if so how due account was taken on them.</p>	49	<p>The procedure of participation of citizens and public organizations in the public expertise was not conducted due to the remoteness of the objects of Priobskoe oil field from popula-</p>	<p>The conservativeness of approach was demonstrated.</p>



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		<p>tion aggregate (the nearest settlement – Seliyarovo is situated in 17 km from the GTPP). It does not contradict with existing legislation. Besides it should be taken into account that environmental impact from the project implementation has been considerably reduced due to stop of flaring.</p> <p>The State expertise was passed and the following approvals have been obtained. There is the register "Addresses and complaints of citizens" in LLC "RN-Uganskneftegas". All addresses of citizens are recorded in this register. No complaints had been received because of APG flaring was prevented.</p>	
<p>CL 17 (raised on the basis of site visit and document review)</p> <p>Please justify conservativeness of TDL calculation method bearing in mind the values provided in the Baseline Study "Development of the electricity carbon emission factors for Russia" /29/.</p>		<p>Study "Development of the electricity carbon emission factors for Russia" provides values of carbon emission factors for the grid in Table 5-1 (used in the PDD) and Table 5-2 (demand-side carbon emission factors). The Table 5-2 considers the values with account of average TDL.</p> <p>The values of TDL calculated in the PDD based on monitoring data available at the moment (6,63% for 2008 and 7,385% for 2009) are less than values of TDL derived from comparison of carbon emission factors in Table 5-1 and 5-2 (9,55% for 2009). This is conservative as Priobskaya GTPP provides electricity to the consumers of the oil fields,</p>	<p>Accepted as conservative approach Closed</p>



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		i.e. project implementation reduces demand from the grid and in this regard carbon emission factors from Table 5-2 should be used.	
<p>CL 18 (raised on the basis of site visit results) Power consumption by Booster Pump stations at OTTW 7; PWDU 285 and in the future at OTTW -8 and PWDU 201 is estimated on the basis of the intake power capacity of equipment (which is constant) and operational hours. Please detail the system to estimate the operational hours and describe relevant QA/QC measures to ensure reliability of Operational hours measurement. Monitoring plan shall be updated accordingly.</p> <p>Please provide the evidence to confirm the intake capacity of power driving gas boosters.</p>		<p>"RN-Uganskneftegas" implements the system of automated technical accounting of electricity (ASTUE) which includes electricity meters with digital controller connected with the central server station by cable lines via special interface. Such system will ensure an on-line monitoring of electricity consumption and reliable recording of data. The planned commissioning of ASTUE is October 2011.</p> <p>Until then the electricity consumption is calculated by multiplication of the time of operation of Takat compressors, its installed capacity (400 kWh) and coefficient 0,8. The time of operation is recorded by duty personnel of the oil separation facilities (OTTW, PWDU) as part of routine monitoring. This information is consolidated by the Department of collection and utilization of gas in the monthly report which is provided to Energy department for the further calculation of electricity consumption for its internal accounting.</p> <p>Necessary amendments have been made in Table D.2. on page 47 of the PDD, version 1.3 of 22/08/2011. Evidence to confirm the intake capacity of power driving gas boosters has been provided to AIE.</p>	Closed on the basis of correction made in PDD v.1.4.



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FAR 01 The monitoring procedure adopted for LLC Yuganskneftegas which encompasses all parameters and sources shall be a subject for check at the stage of verification.			

Dr. Vladimir Lukin - Lead Verifier
 Dr. Alexey Kulakov -Specialist