



EXPERT OPINION ON DETERMINATION

**OJSC «RUSSIAN INNOVATION
FUEL AND ENERGY COMPANY»
(RITEK)**

**«UTILIZATION OF ASSOCIATED PETROLEUM GAS
(APG) AT THE SERGINSKOYE OIL FIELD,
WESTERN SIBERIA, RUSSIA»**

BUREAU VERITAS CERTIFICATION HOLDING SAS

REPORT No. RUSSIA/0027-3/2009



Bureau Veritas Certification has been engaged by OJSC "RITEK" to perform a determination of the Joint Implementation (JI) project "Utilization of associated petroleum gas (APG) at the Serginsky oil field, Western Siberia, Russia". The project is realized in accordance with Article 6 of the Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC).

The determination was performed under Track 1 envisaged by the Joint Implementation mechanism.

The determination is based on the information made available to us and on the engagement conditions. Our only task was to evaluate the project for the purpose of its formal approval under the JI mechanism. Hence, Bureau Veritas Certification cannot be held liable by any party for its decisions made or not made based on this determination expert opinion, which will go beyond that purpose.

The project design document was developed by LLC «Mejdunarodnaya Gruppa «Sigma», which bears responsibility for the correctness of the description of planned and realized project measures and for the estimation of an expected reduction in greenhouse gases (GHG) emissions by sources resulting from the project realization for the whole crediting period from 06.04.2009 to 31.12.2012.

Bureau Veritas Certification is responsible for the determination of whether a project meets the relevant requirements of Article 6, JI guidelines, and Russian legislation.

Oil Production Division "RITEKBelyarskneft" is the operator of the object on which the project is implemented.

The aim of the project is utilization of associated petroleum gas (APG) on the modern power station with gas piston power generation units Cummins QSV 91G with the total installed capacity 7,5 MW located on the Serginsky oil field with the purpose to supply electric energy for own needs of the oil field. In the absence of the project, the whole volume of the utilized APG would be flared (9 mln Nm³ per year on the average) and electric energy would be supplied from the regional grid "Tyumenenergo" (30,8 GWh per year).

The replacement of electric grid capacities by the production of electric energy on APG by the project will result in the GHG emissions reduction during the crediting period in volume of 26 969 tonnes of CO₂-equivalent per year.

Actual investments in the project amounted 6,14 mln euros.

The determination consisted of the following stages: i) a desk review of the project design document as regards project methodology, baseline, monitoring plan, estimation of emissions reduction, assessment of the project impact on environment; ii) follow-up interviews with project stakeholders; iii) the issuance of the determination protocol with requests for corrective action and clarification; iv) analysis and acceptance of the project



participant's responses to the requests; v) the issuance of the determination report and expert opinion.

In the course of the determination, in accordance with the JI Guidelines, we have determined that:

1. The project results in the GHG emissions reduction that is additional to any that would otherwise occur;
2. The expected reduction of GHG emissions by the project during the period from 06.04.2009 to 31.12.2012 amounts 107 876 tCO₂-equivalent;
3. The baseline and monitoring plan of the project are duly elaborated and allow to adequately estimate the GHG emissions reduction ensuing from the project realization;
4. The project reduces an adverse impact of the enterprise on the environment.

Based on the information provided for the analysis and verification, as well as on the results of the project determination, Bureau Veritas Certification, acting as the independent expert organization in accordance with the Decree of the RF Government № 332 dated 28 May 2007 and the Order of the RF Ministry for Economic Development № 70 dated 14 March 2008, has come to the conclusion as follows:

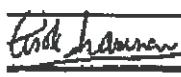
In our opinion, the project "Utilization of associated petroleum gas (APG) at the Serginsky oil field, Western Siberia, Russia" conforms to the requirements of the United Nation Framework Convention on Climate Change applicable to the projects realized in accordance with Article 6 of the Kyoto Protocol and requirements of the Russian Federation and can be recommended for the approval of the RG Government as a Joint Implementation project under Article 6 of the Kyoto Protocol.

Bureau Veritas Certification
14 August 2009

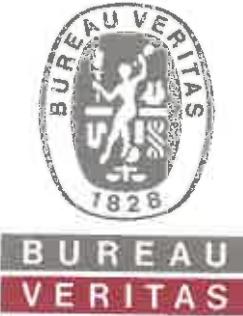
Bureau Veritas Certification
Holding SAS

 Flavio Gomes - Lead verifier

 Leonid Yaskin - verifier

 Ashok Mammen – internal technical reviewer

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Reviewed	
Init	
Date: 14/08/09	



ЭКСПЕРТНОЕ ЗАКЛЮЧЕНИЕ ПО ДЕТЕРМИНАЦИИ

ОАО «Российская Инновационная
Топливно-Энергетическая
Компания» (РИТЭК)

«УТИЛИЗАЦИЯ НЕФТЯНОГО ПОПУТНОГО ГАЗА НА
СЕРГИНСКОМ НЕФТЯНОМ МЕСТОРОЖДЕНИИ,
ТЮМЕНСКОЙ ОБЛАСТИ, РОССИЙСКАЯ ФЕДЕРАЦИЯ»

BUREAU VERITAS CERTIFICATION HOLDING SAS

REPORT No. RUSSIA/0027-3/2009



ЭКСПЕРТНОЕ ЗАКЛЮЧЕНИЕ ПО ДЕТЕРМИНАЦИИ

Бюро Веритас Сертификейшн выполнило по заказу ОАО «Российская Инновационная Топливно-Энергетическая Компания» (РИТЕК) независимую экспертизу (детерминацию) проектной документации на проект «Утилизация нефтяного попутного газа на Сергинском нефтяном месторождении, Тюменской области, Российской Федерации», осуществляемый в соответствии со статьей 6 Киотского протокола к Рамочной конвенции ООН об изменении климата.

Детерминация выполнялась по Треку I, предусмотренному механизом Совместного Осуществления.

Детерминация основана на информации, которая была нам предоставлена в соответствии с контрактом. Единственной нашей задачей было оценить проект для целей его утверждения в качестве проекта совместного осуществления. С учетом этого Бюро Веритас Сертификейшн не несет ответственность перед любой стороной за решения, принятые или отложенные на основании настоящего экспертного заключения по детерминации, которые выходят за рамки назначения данного заключения.

Проектная документация разработана ООО «Международная группа «Сигма», которое несет ответственность за правильность описания планируемых и выполненных мероприятий по проекту и за оценку планируемой величины сокращения выбросов парниковых газов из источника в результате реализации проекта за весь кредитный период с 06.04.2009 по 31.12.2012. Источником парниковых газов, на который воздействует проект, является производство электроэнергии на электростанциях, работающих в сетях «Тюменьэнерго».

Бюро Веритас Сертификейшн несет ответственность за определение (детерминацию) того, соответствует ли проектная документация соответствующим требованиям Статьи 6 Киотского протокола, Руководящим Принципам механизма Совместного Осуществления, законодательству РФ.

Оператором объекта, на котором осуществляется проект, является нефтепромысловое управление «РИТЭКБелоярскнефть», входящее в структуру ОАО «РИТЭК».

Цель проекта Совместного Осуществления определена как утилизация нефтяного попутного газа (НПГ) на электростанции с газо-поршневыми генераторными установками Cummins QSV91G суммарной мощностью 7,5 МВт, установленной на Сергинском месторождении с целью обеспечения электроэнергией собственных нужд. В отсутствии проекта весь объем утилизируемого ПНГ сжигался бы в факеле (в среднем, 9 млн. м³ в год), а электроэнергия поставлялась бы из сетей «Тюменьэнерго» (30,8 ГВт.час в год).

Замещение мощности региональных электростанций производством электроэнергии на утилизированном газе по проекту приведет к среднегодовому сокращению выбросов парниковых газов в кредитный период 2009-2012 в объеме 26 969 тыс. тонн CO₂ - эквивалента.

Фактический объем инвестиций по проекту составил 6,14 млн. евро.

Детерминация проекта выполнялась в несколько этапов: i) анализ проектной документации по направлениям: методология проекта, исходные условия для реализации проекта, план мониторинга, оценка планируемого сокращения выбросов парниковых газов, оценка воздействия проекта на окружающую среду; ii) интервью с участниками



ЭКСПЕРТНОЕ ЗАКЛЮЧЕНИЕ ПО ДЕТЕРМИНАЦИИ

проекта, iii) выпуск протокола детерминации, включающего запросы на корректирующие действия; iv) согласование действий участников проекта, принятых в ответ на эти запросы; v) выпуск отчета о детерминации и заключения на проект.

В ходе детерминации проекта в соответствии с Руководящими Принципами механизма Совместного Осуществления установлено:

1. Проект приводит к дополнительному сокращению выбросов парниковых газов по сравнению с тем, что имело бы место в отсутствии проекта;
2. Ожидаемая величина сокращения выбросов парниковых газов по проекту в период с 06.04.2009 г. по 31.12.2012 г. составит 107 876 тыс. тонн CO₂ - эквивалента;
3. Исходные условия и план мониторинга проекта надлежащим образом разработаны и позволяют адекватно определять сокращение выбросов парниковых газов, которые достигаются в результате реализации проекта;
4. Проект приводит к снижению негативного воздействия предприятия на окружающую среду;

Основываясь на информации, представленной для анализа и верификации, а также на результатах детерминации проекта, компания Бюро Веритас Сертификейшн, действующая в качестве независимой экспертной организации в соответствии с Постановлением Правительства Российской Федерации от 28 мая 2007 г. N 332 и Приказом Минэкономразвития России от 14.03.2008 г. №70, пришла к нижеследующему заключению:

По нашему мнению, проект «Утилизация нефтяного попутного газа на Сергинском нефтяном месторождении, Тюменской области, Российская Федерация» соответствует требованиям Рамочной конвенции ООН об изменении климата, применимым к проектам, осуществляемым в соответствии со статьей 6 Киотского протокола, и требованиям законодательства РФ и может быть рекомендован к утверждению Правительством Российской Федерации для целей совместного осуществления в соответствии со статьей 6 Киотского протокола.

Бюро Веритас Сертификейшн
14 августа 2009 г.

Flavio Gomes - Ведущий верификатор

Bureau Veritas Certification
Holding SAS

Леонид Яскин - верификатор

Ashok Mammen – внутренний технический инспектор



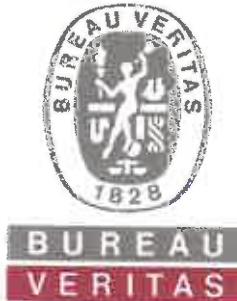
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Date: 14/08/09



DETERMINATION REPORT

OJSC “RITEK”

**DETERMINATION OF THE
«UTILIZATION OF ASSOCIATED PETROLEUM GAS
(APG) AT THE SERGINSKOYE OIL FIELD,
WESTERN SIBERIA, RUSSIA»**

BUREAU VERITAS CERTIFICATION

REPORT No. RUSSIA/0027-2/2009, VERSION 01

BUREAU VERITAS CERTIFICATION



Report No: RUSSIA/0027-2/2009 Version 01

Determination Report on JI project

"Utilization of associated petroleum gas (APG) at the Serginsky oil field, Western Siberia, Russia"

Date of first issue: 11/08/2009	Organizational unit: Bureau Veritas Certification Holding SAS
Client: OJSC "RITEK"	Client ref.: Mr. Galiya Khuzina

Summary:

Bureau Veritas Certification has made the determination of the project "Utilization of associated petroleum gas(APG) at the Serginsky oil field, Western Siberia, Russia" 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 guidelines and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria. The determination is carried out under Track 1 as per Glossary of JI terms, in line with paragraph 23 of the JI guidelines.

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

The first output of the determination process is a list of Clarification and Corrective Actions Requests (CL and CAR), presented in Appendix A, Table 5. Taking into account this output, the project proponent has revised its project design document.

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

Report No.: RUSSIA/0027-2/2009 Version1	Subject Group: JI	Indexing terms: <i>Climate Change, Kyoto Protocol, JI, Emission Reductions, Verification,</i>	
Project title: "Utilization of associated petroleum gas (APG) at the Serginsky oil field, Western Siberia, Russia"			
Work carried out by: Flavio Gomes – Team leader, Lead verifier Leonid Yaskin – Team member, verifier 	<input checked="" type="checkbox"/> No distribution without permission from the Client or responsible organizational unit		
Work verified by: Ashok Mammen - BVC Technical Manager for Climate Change, Internal reviewer 	<input type="checkbox"/> Limited distribution		
Date of this revision: 11/08/2009	Rev. No.: 01	Number of pages: 58	<input type="checkbox"/> Unrestricted distribution

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Holding SAS



**Determination Report on JI project
"Utilization of associated petroleum gas (APG) at the Serginsky oil field,
Western Siberia, Russia"**

Abbreviations

AIE	Accredited Independent Entity
APG	Associated petroleum Gas
BVC	Bureau Veritas Certification
C	Carbon
CAR	Corrective Action Request
CL	Clarification Request
CH4	Methane
CO2	Carbon Dioxide
CRF	Capital Recovery Factor
DDR	Draft Determination Report
DR	Document Review
EIA	Environmental Impact Assessment
ERU	Emission Reduction Unit
GHG	Green House Gas(es)
GGP	Gas Power Plant
JI	Joint Implementation
JISC	Joint Implementation Supervisory Committee
I	Interview
IE	Independent Entity
IETA	International Emissions Trading Association
IPCC	Intergovernmental Panel on Climate Change
IRR	Internal Rate of Return
LHV	Low Heating Value
MoV	Means of Verification
NPV	Net Present Value
OJSC	Open Joint Stock Company
PCF	Prototype Carbon Fund (World Bank Carbon Finance Unit)
PDD	Project Design Document
PP	Project Participant
RITEK	Russian Innovation Fuel and Energy Company
tCO2e	Tonnes CO2-equivalent
UNFCCC	United Nations Framework Convention for Climate Change

**Determination Report on JI project**

**"Utilization of associated petroleum gas (APG) at the Serginsky oil field,
Western Siberia, Russia"**

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**Determination Report on JI project**

"Utilization of associated petroleum gas (APG) at the Serginsky oil field, Western Siberia, Russia"

1 INTRODUCTION

OJSC "RITEK" has commissioned Bureau Veritas Certification to determine its JI project "Utilization of associated petroleum gas (APG) at the Serginsky oil field, Western Siberia, Russia" (hereafter called "the project") located in the Yamalo-Nenetsky autonomous okrug (Yanao), Tumen oblast.

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 purpose of the determination is to provide 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 emission reduction units (ERUs).

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

1.2 Scope

The determination scope is defined as an independent and objective review of the project design document (PDD), with focus on the project's baseline study (BLS) and monitoring plan (MP), and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements for Joint Implementation (JI) projects, the guidelines for the implementation of Article 6 of the Kyoto Protocol (Decision 16/CP.7) as agreed in the Marrakech Accords, in particular the verification procedure under the JI Supervisory Committee, and associated interpretations. Bureau Veritas Certification has, based on the recommendations in the Validation and Verification Manual (IETA/PCF), employed a risk based approach in the determination process, focusing on the identification of significant risks for project implementation and generation of ERUs.

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

1.3 GHG Project Description

The project is aimed at utilization of associated petroleum gas (APG) on modern gas power plant (GPP) with the total capacity 7,5 MW on Serginsky oil field (owner - JSC "RITEK"), Oktyabrsky area, Khanty-Mansijsk Okrug- Yugra, Tyumen oblast, Western Siberia, Russia.

**Determination Report on JI project**

"Utilization of associated petroleum gas (APG) at the Serginsky oil field, Western Siberia, Russia"

Five Cummins QSV 91G generating units of 1.5 MW nominal electrical capacity each are installed at the plant. Power plant is designed for APG utilization. Generated electric energy is used by the complex of the basic and supporting equipment on the oil wells and by local housing facilities of the oilfield.

APG at the Serginsky oil field is obtained during the separation process at the booster pump station located next to the new power plant. The APG utilized within the project was previously flared. Within the project, part of the APG is used by the power plant with the remaining APG flared as usual at the stack of the booster pump station. Power needs of the project owner were initially covered from the regional electric grid.

Exploitation of Serginsky oilfield began in 1995. Within the baseline scenario, the growth of power consumption at the oilfield was supposed to be covered by additional acquisition of power from the regional grid. This scenario did not presuppose any additional investment costs.

As long ago as 2000-2004, the project owner JSC RITEK considered a number of options of APG utilization that were thoroughly analyzed and assessed. Partly, the refusal from the baseline scenario can be attributed to the innovation profile of JSC "RITEK" within its mother Group LUKOIL. RITEK has been chosen as a testing ground for advanced technological and environmental solutions within the Group, which presupposed additional costs that were spent often regardless of the profitability considerations. Therefore the goal of this project was initially APG utilization and no other goal was possible since it presupposed considerable costs for substitution of the existing power supply system that could not be considered necessary from either economic or technological viewpoint.

One of the legitimate ways of overcoming the financial barriers connected with APG utilization is provided by the expected incentives by the Joint Implementation (JI) mechanism of the Kyoto Protocol.

Carbon revenues were expected in the frameworks of the JI format by the project owner since the Kyoto Protocol was signed in 1997 but until September 2003 when the Government Climate Change Commission of Russian Federation has taken the due decisions on the National JI regulation in Russia, these possibilities were not considered as high. After these decisions made, the chances of receiving carbon revenues have grown substantially, that was taken into consideration by RITEK.

The project has started on the basis of the above mentioned decisions of the Government Climate Change Commission of the RF. With this in mind the related decision was taken on the meeting of the RITEK Technical Board on 25.09.2003 and the development and technical design works have started, later followed by the construction phase.

**Determination Report on JI project**

"Utilization of associated petroleum gas (APG) at the Serginsky oil field, Western Siberia, Russia"

The related feasibility study was done by the JSC "NIPIGazpererabotka" research institute (Krasnodar, Russian Federation), contract concluded on 29.09.2003. The preliminary report of this study was issued in December 2003, the final report was ready by May 2004. The project alternatives examined by the institute combined solution of the problem of APG utilization and electricity generation. The option chosen by the project owner presumed construction of GPP.

The technical design was performed by the JSC "Giprotyumenneftegaz". Contract of the full-cycle work on the first block of the power station in Serginsky was concluded with JSC "Zvezda-Energetika" (Saint Petersburg, Russian Federation) on 07.06.2007. The job was executed on turnkey basis with the commissioning on 06.04.2009.

In addition to the GHG emission reductions, the project contributes to sustainable development of the host country by promoting the utilization of wasted APG which can be a valuable energy resource. The project also leads to the reduction of local pollutants such as CH₄, CO, NO_x, through reduced gas flaring and more efficient combustion of the APG by the environmentally friendly low-emission gas engines.

The supplier of APG to the GPP and the user of electric power produced is the project owner – RITEK. The power users are mainly groups of pumping stations, which are maintaining oil reservoir pressure by pumping water into the reservoirs 24 hours a day, and other facilities ensuring oil production and transportation at the oil field. Well-exploiting settlement also consumes power. There are no other potential consumers in the oil-field area.

The basic operating mode for the Power Plant presumes that three units operate (at an average of 80% of total capacity), with the possibility of growth of power output, due to growth of consumption by the oil production facilities. One unit is reserved to provide peak demand periods, and another one is kept as a reserve capacity. The general electric energy production, taking into account the electric power consumed by GPP for own needs, makes 18300 MWh in 2009 with expected growth up to 39200 MWh by 2012.

The Project will reduce CO₂ and CH₄ emissions in two ways:

- Local emissions of CO₂ and CH₄ will be reduced due to the increased combustion efficiency in the gas engines compared to the Serginsky field flare,
- Emissions of CO₂ from Tyumen region grid power plants will be reduced due to replacement of grid generation capacities by GPP output.

Estimated total reductions of GHG emissions will be 26 969 tCO₂e per year and respectively 107 876 tCO₂e within the 2009-2012 crediting period.



Determination Report on JI project
**"Utilization of associated petroleum gas (APG) at the Serginsky oil field,
 Western Siberia, Russia"**

1.4 Determination team

The determination team consists of the following personnel:

Flavio Gomes

Bureau Veritas Certification - Team Leader, Lead verifier

Leonid Yaskin

Bureau Veritas Certification – Team member, verifier

Ashok Mammen

Bureau Veritas Certification – Internal Technical Reviewer

2 METHODOLOGY

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

The determination consisted of the following three phases:

- i) desk review of the project design document and the baseline and monitoring plan;
- ii) on-site assessment (June 7th 2009);
- iii) resolution of outstanding issues (ref. to Annex A Table 5 with CAR's) and the issuance of the final determination report and opinion.

In order to ensure transparency, a determination protocol was customized for the project, based on the Determination and Verification Manual (IETA/PCF). The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results from validating the identified criteria. The determination protocol serves the following purposes:

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

The original determination protocol consists of five tables. The different columns in these tables are described in Figure 1.

The completed determination protocol is enclosed in Appendix A to this report. It consists of 4 tables: Table 3 Baseline and Monitoring Methodologies is skipped since an own approach is used in the PDD and the questions regarding the used approach are present in Table 2.

**Determination Report on JI project**

"Utilization of associated petroleum gas (APG) at the Serginsky oil field, Western Siberia, Russia"

Determination Protocol Table 1: Mandatory Requirements

Requirement	Reference	Conclusion	Cross reference
The requirements the project must meet.	Gives reference to the legislation or agreement where the requirement is found.	This is either acceptable based on evidence provided (OK), a Corrective Action Request (CAR) or a Clarification Request (CL) of risk or non-compliance with stated requirements. The CAR's and CL's are numbered and presented to the client in the Determination Report.	Used to refer to the relevant protocol questions in Tables 2, 3 and 4 to show how the specific requirement is validated. This is to ensure a transparent determination process.

Determination Protocol Table 2: Requirements checklist

Checklist Question	Reference	Means of verification (MoV)	Comment	Draft and/or Final Conclusion
The various requirements in Table 1 are linked to checklist questions the project should meet. The checklist is organized in several sections. Each section is then further sub-divided. The lowest level constitutes a checklist question.	Gives reference to documents where the answer to the checklist question or item is found.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (OK), or a Corrective Action Request (CAR) due to non-compliance with the checklist question. (See below). Clarification Request (CL) is used when the determination team has identified a need for further clarification.

Determination Protocol Table 3: Baseline and Monitoring Methodologies

Checklist Question	Reference	Means of verification (MoV)	Comment	Draft and/or Final Conclusion
The various requirements of baseline and monitoring methodologies should be met. The checklist is organized in several sections. Each section is then further sub-divided. The lowest level constitutes a checklist question.	Gives reference to documents where the answer to the checklist question or item is found.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (OK), or a Corrective Action Request (CAR) due to non-compliance with the checklist question. (See below). Clarification Request (CL) is used when the determination team has identified a need for further clarification.

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Determination Protocol Table 4: Legal requirements				
Checklist Question	Reference	Means of verification (MoV)	Comment	Draft and/or Final Conclusion
The national legal requirements the project must meet.	Gives reference to documents where the answer to the checklist question or item is found.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (OK), or a Corrective Action Request (CAR) due to non-compliance with the checklist question. (See below). Clarification Request (CL) is used when the determination team has identified a need for further clarification.

Determination Protocol Table 5: Resolution of Corrective Action and Clarification Requests			
Report corrective action and clarifications requests	Ref. to checklist question in tables 1/2/3	Summary of project owner response	Determination conclusion
If the conclusions from the Determination are either a Corrective Action Request or a Clarification Request, these should be listed in this section.	Reference to the checklist question number in Tables 1-4 where the Corrective Action Request or Clarification Request is explained.	The responses given by the Client or other project participants during the communications with the determination team should be summarized in this section.	This section should summarize the determination team's responses and final conclusions. The conclusions should also be included in Tables 1-4 under "Final Conclusion".

Figure 1 Determination protocol tables

2.1 Review of Documents

Following the signature of the contract, OJSC "RITEK" has submitted to Bureau Veritas Certification on 29 May 2009 the Project Design Document (PDD) Version 2.2 dated 14 May 2009. The PDD and additional background documents related to the project design, baseline, and monitoring plan, i.e. Kyoto Protocol, Host Country Laws, Guidelines for Users of the Joint Implementation Project Design Document Form, JISC Guidance on Criteria for Baseline Setting and Monitoring, Combined tool to identify the baseline scenario and demonstrate additionality/Version 02.2 as well as company supporting documents were reviewed. The deliverable of the review was the Draft Determination Report (DDR) Version 1 dated 01 July 2009.

PDD Version 3.1 was issued on 21 July 2009 to take into account the RITEK clarification that sale of electric energy produced by the project GPP is not envisaged. This PDD was reviewed; the deliverable has been DDR Version 2 dated 25 July 2009.

PDD Version 4.1 was issued on 4 August 2009 to take into account the RITEK decision to remove the heating station component from the project. The review of this PDD did not disclose any areas of the verifiers' concern.

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The determination findings presented in this Determination Report Version 01 relate to the project as originally described in PDD Version 2.2 dated 15 May 2009 and finally revised in PDD Version 4.1 dated 4 August 2009.

2.2 Follow-up Interviews

Bureau Veritas Certification verifier Leonid Yaskin conducted a visit to the project participant company on 7 July 2009. Interviews with the project participant, with participation of PDD developer «Mejdunarodnaya Gruppa «Sigma» LLC, were conducted to confirm the selected information and to resolve issues identified in the document review. The main topics of the interviews are summarized in Table 1. The attendees are listed in Section 6.

Following the submission of the Draft Determination Report Version 02 to project participant, a meeting of the PP and PDD developer with BVC verifier Leonid Yaskin were held at PP request on 27 July 2009. The main topics of the interviews are summarized in Table 1. The attendees are listed in Section 6.

Table 1. Interview topics

1. Interviewed organization	2. Date	3. Interview topics
OJSC "RITEK"	7 July 2009	<ul style="list-style-type: none"> ➤ History of the project ➤ Licence issues ➤ Implementation schedule ➤ Technical design and investment issues ➤ Baseline scenario parameters ➤ Project scenario parameters ➤ Sales of electricity by the project ➤ Project management organisation ➤ Environmental Impact Assessment
«Mejdunarodnaya Gruppa «Sigma» LLC	7 July 2009	<ul style="list-style-type: none"> ➤ Baseline definition and study ➤ Project scenario definition ➤ Additionality substantiation ➤ Heating station component ➤ Sale of electric energy ➤ Monitoring plan ➤ GHG emission estimation ➤ Estimation of grid emission factors ➤ Use of NII Atmosphere Methodology

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OJSC "RITEK" and «Mejdunarodnaya Gruppa «Sigma» LLC	27 July 2009	<ul style="list-style-type: none"> ➤ Removal of heating component ➤ NPV and sensitivity analysis ➤ Common practice issue elaborateness ➤ PP responses to CARs and CLs
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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 followed on by the project participants for Bureau Veritas Certification positive conclusion on the project design.

Corrective Actions Requests (CAR) are issued, where:

- i) there is a clear deviation concerning the implementation of the project as defined in the PDD;
- ii) requirements set by the Methodological Procedure or qualifications in a verification opinion have not been met; or
- iii) there is a risk that the project would not be able to deliver high quality ERUs.

Clarification Requests (CL) are issued where

- iv) additional information is needed to fully clarify an issue (no CL's were issued on this project).

DDR Version 1 summarising Bureau Veritas Certification's findings was submitted to RITEK on 1 July 2009. The findings identified have been 10 CAR's. Based on these findings and the interviews with BVC verifier held on 7 July 2009, the PDD developer made necessary amendments to PDD Version 2.2 and issued PDD Version 3.1 dated 21 July 2007. Findings of the review of this document were reported in DDR Version 2 dated 25 July 2009. One additional CAR was added. The additions and corrections made to the PDD in response to verifiers' CARs and PP's instructions were reported in PDD Version 4.1 dated 4 August 2009. The changes made satisfactorily addressed the verifiers' concerns. As a result, the Determination Report Version 01 was issued on 11 August 2008. On the same day the Determination Report Version 01 and PDD Versions 2.2 and 4.1 were sent to Bureau Veritas Certification Internal Technical Reviewer (ITR) for review.

To guarantee the transparency of the determination process, the CAR's raised in the Determination Report Version 01 are summarized in Appendix A Table 5.

3 DETERMINATION FINDINGS

In the following sections, the findings of the determination are presented for each determination subject as follows:

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"Utilization of associated petroleum gas (APG) at the Serginsky oil field, Western Siberia, Russia"

- i) the findings from the desk review of the original project design document and the findings from interviews during the site visit are summarized. A more detailed record of these findings can be found in the Appendix A Determination Protocol.
- ii) where Bureau Veritas Certification had identified issues that represented a risk to the fulfillment of the determination protocol criteria or the project objectives, a Corrective Action Request has been issued. The Corrective Action Requests are stated in the in Appendix A Determination Protocol.
- iii) where Corrective Action Requests have been issued, the response by the project participants to resolve these requests is summarized in Appendix A Table 5.
- iv) the conclusions of the determination are presented consecutively.

3.1 Project Design

The project provides reduction of GHG emissions by the use of the state-of-art technology of electric energy production by APG fired gas piston engines as compared with the baseline scenario, which envisages the consumption of the electric energy from the local Tyumenenergo grid.

5 Cummins QSV 91G gas engines of 1.5 MW nominal electrical capacity each are installed at the gas power plant (GPP) and produce electric energy for the oil field needs. The gas engines consume APG, which would be otherwise flared.

The project activity provides the following benefits:

- reduction of fossil fuel consumption by grid power plants replaced by GPP;
- reduction of atmosphere pollution by CH₄ emissions from APG flaring;
- reduction of GHG emissions.

In the course of the determination, the project design underwent changes. Originally, the project envisaged, inter alia, the sale of extra electric energy to the grid and the utilization of APG in gas fired heating station (ref. PDD Version 2.2). Then, the sale of electric energy was dropped as irrelevant (ref. PDD Version 3.1). Finally, the heating component was removed as affecting the additionality (PDD Version 4.1).

Identified area of concern as to Project Design, PP's response and BV Certification's conclusion is described in Appendix A Table 5 (refer to CAR 02).

The project has no approval by the Host Party involved, therefore CAR 01 remains pending. The project participant will be authorized by the Host Party involved through the project approval process.

3.2 Baseline and Additionality

Following the Annex B of the JI Guidelines and the JISC "Guidance on criteria for baseline setting and monitoring", the project participant established own baseline project-specific approach.

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To prove the project additionality, the routine provisions of the CDM "Combined tool to identify the baseline scenario and demonstrate additionality" [6] were on the whole followed.

After screening of seven identified alternatives, two alternative scenarios were selected, namely Alternative 1 Continuation of APG flaring with electricity consumption from the electric grid and Alternative 2 The project activity without registration under JI. Both alternatives do not contradict with the mandatory legislation and regulations. The license agreement for the Serginsky oil field development does not contain any condition for APG utilization. No particular barriers (except financial) prevent the implementation of each alternative.

The comparative investment analysis of Alternatives 1 and 2 was carried out in terms of NPV and IRR. Alternative 2 (the project) provides the electricity cost saving due to replacement of electric energy purchase by its production on the GPP. The calculations supplemented by the sensitivity analysis evidence that the Alternative 2 is not most financially and economically attractive ($NPV < 0$). Therefore the Alternative 1 is taken as baseline scenario.

The project is located in the Khanty-Mansijsky Autonomous Okrug (KhMAO) – Yugra, where 57% of all Russian oil and 7,5% of world oil is produced. According to the official statement of the KhMAO Governor Mr. A. Philippenko <http://www.rusoil.ru/opinions/o06-44.html> and other numerous information from Internet, in 2007 only three APG fired gas piston power plants were located in KhMAO. Each was constructed to replace diesel generators in order to reduce a few times the cost of electric energy. Compared to this, the GPP at the Serginsky oil field is constructed to replace the consumption of available electric energy from electric grid and, at the actual project CAPEX and OPEX, is unprofitable. So the project activity was the first of kind gas piston power plant on APG as regards replacement of available grid capacity. Hence, the project category in no way falls under the category of common practice.

So, the project provides emission reductions that is additional to any that would otherwise occur, and yet it financially additional to the baseline scenario.

Identified areas of concern as to Baseline and Additionality, PP's responses and BV Certification's conclusions are described in Appendix A Table 5 (refer to CAR 03, CAR 04, CAR 05, CAR 06, CAR 07).

Identified areas of concern as to Project Duration / Crediting Period, PP's responses and BV Certification's conclusions are described in Appendix A Table 5 (refer to CAR 08, CAR 09).

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3.3 Monitoring Plan

Monitoring of greenhouse gases emission is based on the own approach which is in line with the provisions of JISC "Guidance on criteria for baseline setting and monitoring".

The parameters to be measured for estimation of GHG emissions reductions are presented in a combined table as per [2]. These are electric energy generation by gas engines, volume and volumetric composition of APG. Based on the APG composition, its density and carbon content are calculated.

The GHG emissions from firing APG in GPP in the project scenario are defined as the product of APG volume, density, carbon content and ratio of CO₂ and C molecular weights.

The GHG emissions from APG flaring in the baseline scenario are defined as the sum of CO₂ and CH₄ emissions from, respectively, complete and incomplete APG combustion. These were calculated by the recognized NII Atmosphere Methodology [5].

The GHG emissions from local Tyumenenergo grid power plants in the baseline scenario are defined as the product of supplied electric energy by the grid emission factor, which was calculated by the CDM "Tool to calculate the emission factor for an electricity system" [8].

A typical operational and management structure that RITEK implements at own oil fields to monitor emission reduction is clearly described in the PDD. Site-visits to similar GPP installed at RITEK's Vostochno-Perevalnoye and Sredne-Khulymsk oil-fields and interviews in the PP head office confirmed the availability and operability of this common structure.

Identified areas of concern as to Monitoring Plan, PP's responses and BV Certification's conclusions are described in Appendix A Table 5 (refer to CAR 10, CAR 11).

3.4 Calculation of GHG Emissions

The initial data for calculation of emission reduction and the calculated values are presented in Section E. The calculation method was corrected as a response on CAR 11 (refer to 3.3 above). The verifiers checked the corrected calculations and found them accurate. The calculated value of project emission reduction over the crediting period from 06 April 2009 to 31 December 2012 is 107 876 tCO₂e. Annual average emission reduction is 26 969 tCO₂e/year.

3.5 Environmental Impacts

EIA was made in Volume 4 of the Technical Design of the Serginsky oilfield GPP. The positive opinion on the project by the State Expertise was issued. The application for the issuance of the Permit for Air Emission from GPP at Serginsky oil field was submitted by

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RITEK to the North-Ural Department of Rostekhnadzor [6]. RITEK pays for the environment pollution in accordance with the existing legislation.

3.6 Comments by Local Stakeholders

No comments were received so far.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

Similar to the Verification procedure under the Article 6 Supervisory Committee, Bureau Veritas Certification published the PDD Version 2.0 on BVC site www.bureau-veritas.ru on 01/06/2009 and invited comments within 30/06/2009 by Parties, stakeholders and non-governmental organizations.

No comments from third parties have been received.

5 DETERMINATION OPINION

Bureau Veritas Certification has been engaged by OJSC "RITEK" to perform a determination of the JI project "Utilization of associated petroleum gas (APG) at the Serginsky oil field, Western Siberia, Russia". The determination was performed on the basis of UNFCCC criteria for JI projects, in particular the verification procedure under the JI Supervisory Committee, as well as host country criteria and the criteria given to provide for consistent project operations, monitoring and reporting.

The determination was carried out under Track 1 as per Glossary of JI terms, in line with paragraph 23 of the JI guidelines.

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

The review of the project design documentation, the subsequent follow-up interviews, and the resolution of the Corrective Action Requests have provided Bureau Veritas Certification with the sufficient evidences to determine the fulfilment of the above stated criteria and to demonstrate that the project is additional.

An analysis of the investment and related barriers demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. As the project is implemented and maintained as designed, it is most likely to achieve the estimated amount of emission reductions.

The determination revealed two pending issues related to the current determination stage of the project: the issue of the written approval of the project and the authorisation of the project participant by the host Party (Russian Federation). If the written approval and the authorisation by the host Party is awarded, it is our opinion that the project as described in the Project Design Document, version 4.1 dated 04/08/2009 meets all the



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relevant UNFCCC requirements for the determination stage and the relevant host Party criteria.

Bureau Veritas Certification thus recommends this project for the formal approval by the Russian Federation as the JI project in accordance with the RF Government Decree N 332 dated 28/05/2007.

The determination is based on the information made available to us and on the engagement conditions detailed in this report. The determination has been performed using a risk-based approach as described above. The only purpose of the report is its use for the formal approval of the project under JI mechanism. Hence, Bureau Veritas Certification cannot be held liable by any party for decisions made or not made based on the determination opinion, which will go beyond that purpose.

Flavio Gomes – Team leader, Lead verifier

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Leonid Yaskin – Team member, verifier

A handwritten signature of Leonid Yaskin in blue ink.

Ashok Mammen – Technical Internal Reviewer

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Bureau Veritas Certification
Holding SAS

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Date: 14/08/09	

**Determination Report on JI project**

"Utilization of associated petroleum gas (APG) at the Serginsky oil field, Western Siberia, Russia"

6 REFERENCES

Reviewed document or Type of Information referred to in Appendix A

1	PDD "Utilization of associated petroleum gas (APG) at the Serginsky oil field, Western Siberia, Russia", Version 2.2 dated 14/05/2009.
2	Guidelines for Users of the Joint Implementation Project Design Document Form for Small Scale Projects/Version 03, JISC.
3	JI Guidelines. Annex to decision 9/CMP.1. 2005
4	Guidance for criteria for baseline setting and monitoring, Version 01, JISC.
5	"Methodology of calculation of emissions of hazardous substances into the atmosphere due to the flaring of the associated petroleum gas at flaring stacks". NII Atmosphere, Saint Petersburg, 1997.
6	Combined tool to identify the baseline scenario and demonstrate additionality, Version 02.2, CDM Executive Board.
7	Governmental Decree # 07 dated 08/01/2009.
8	Tool to calculate the emission factor for an electricity system/Version 01.1. CDM - Executive Board
9	AM0002 Consolidated baseline methodology for grid-connected electricity generation from renewable sources/Version 10. CDM – Executive Board.
10	On approval of methodological instructions for examination of project documentation. Order by the Ministry of Economic Development and Trade of the RF, dated 20 December 2007, N 444.
11	RF Government Decree No. 332, dated 28 May 2007, Procedure For Approval And Verification of Status of Projects Carried Out In Accordance With Article 6 Of The Kyoto Protocol to The United Nations Framework Convention On Climate Change.

Document or Type of Information obtained at the site visit

References in Appendix A are underlined

1	"License for the right to use the subsoil of Serginsky oil field" granted to JSC "RITEK" on 29/09/1999. Expiry date is 2024.
2	Feasibility study on rational utilization of APG resources and determination of maximal, economically expedient levels of its utilization on RITEC oil fields. JSC NIPIGaspererabotka. Krasnodar 2003
3	Environment Impact Assessment. Environment protection. 7655-Dok-T4. Volume 4. Technical Design. Gas piston power plant at Serginsky oil field. JSC "Giprotyumenneftegas". Tyumen 2007.
4	Explanatory note and drawings. 7655 Doc – T4 Environment Impact Assessment. Environment protection. 7655-Dok-T1-K1. Volume 1. Book 1. Technical Design. Gas piston power plant at Serginsky oil field. JSC "Giprotyumenneftegas". Tyumen 2007.
5	Positive Opinion of State Expertise № 156-08/XME-0166/02 dated 24/08/2008 on capital construction object "GPES at Serginsky oil field".
6	Application for the issuance of Permit for Air Emissions from GPES at Serginsky oil field. Letter of Oil Transport Division "RITEKBelyoarskneft" № 2639/01.10 dated 14/07/2009 to Rostekhnadzor North-Ural Department.
7	Yu. A. Sumin. Planned production of electric energy on GPES at Serginsky oil field.

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	Information material dated 07/07/2009.
8	Excel tool for calculation of emission reduction. LLC «Mejdunarodnaya Gruppa «Sigma» 2009.

Persons interviewed:**on 07/07/2007**

1	K.A. Mikoyan - OJSC "RITEK" Head of JI working group, Lead Specialist
2	A.O. Kulakov – OJSC "RITEK" Lead Specialist of Department for oil preparation and transportation
3	Yu.A. Sumin - OJSC "RITEK" Deputy Head of Energy Department
4	A.M. Ovodkov - OJSC "RITEK" Lead Lawyer
5	A.S. Manenkova – OJSC "RITEK" Lead Specialist of Finance Department
6	O.V. Akatyeva – Specialist of Industrial Safety and Corporate Surveillance Department.
7	Sergey Roginko - LLC «Mejdunarodnaya Gruppa «Sigma» Chief Executive
8	Denis Monakhov - LLC «Mejdunarodnaya Gruppa «Sigma» Expert

on 27/07/2007

1	K.A. Mikoyan - OJSC "RITEK" Head of JI working group, Lead Specialist
2	A.O. Kulakov – OJSC "RITEK" Lead Specialist of Department for oil preparation and transportation
3	Sergey Roginko - LLC «Mejdunarodnaya Gruppa «Sigma» Chief Executive
4	Denis Monakhov - LLC «Mejdunarodnaya Gruppa «Sigma» Expert



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7 DISCLAIMER

This report contains the results of the determination of whether the project under consideration meets the relevant requirements of Article 6 of the Kyoto Protocol and the JI guidelines. The used determination procedure does not fall under the verification procedure under the JISC, as defined in the JI guidelines, paragraphs 30–45. Instead, paragraph 23 of the JI guidelines applies to the determination based on which Bureau Veritas Certification Holding SAS issues, in the frame of the contract with JSC "RITEK", an expert opinion on the project as per the RF Government Decree No. 332, dated 28 May 2007, "Procedure for approval and verification of status of projects carried out in accordance with Article 6 of the Kyoto Protocol to the United Nations Framework Convention on Climate Change".



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APPENDIX A: COMPANY JI PROJECT DETERMINATION PROTOCOL

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

1. REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
1. The project shall have the approval of the Parties involved.	Kyoto Protocol Article 6.1 (a)	<p>CAR 01. The project has no approvals of the Parties involved.</p> <p>Verifiers' Note: JISC JI terms/Version 01 defines the following:</p> <p>a) At least the written project approval(s) by the host Party(ies) should be provided to the AIE and made available to the secretariat by the AIE when submitting the determination report regarding the PDD for publication in accordance with paragraph 34 of the JI</p>	Table 2 Section A.5.



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1. REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
		guidelines; (b) At least one written project approval by a Party involved in the JI project, other than the host Party(ies), should be provided to the AIE and made available to the secretariat by the AIE when submitting the first verification report for publication in accordance with paragraph 38 of the JI guidelines, at the latest.	Table 2, Section B.2
2. Emission reductions, or an enhancement of removal by sinks, shall be additional to any that would otherwise occur.	Kyoto Protocol Article 6.1 (b)	OK	Table 2, Section B.2
3. The sponsor Party shall not acquire emission reduction units if it is not in compliance with its obligations under Articles 5 & 7.	Kyoto Protocol Article 6.1 (c)	OK	N/A
4. The acquisition of emission reduction units shall be supplemental to domestic actions for the purpose of meeting commitments under Article 3.	Kyoto Protocol Article 6.1 (d)	OK	N/A
5. Parties participating in JI shall designate national focal	Marrakech	OK	The Russian



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1. REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
points for approving JI projects and have in place national guidelines and procedures for the approval of JI projects.	Accords, JI Modalities, §20		<p>national focal point is the Ministry of Economic Development.</p> <p>The Russian national guidelines and procedures are established by the RF Government Decree N 332 dated 28/05/07 and by RF Ministry of Economic Development and Trade Order N 444 dated 20/12/07.</p>
6. The host Party shall be a Party to the Kyoto Protocol.	Marrakech Accords, JI Modalities, §21(a)/24	OK	Russia has ratified the Kyoto Protocol by Federal Law N 128-ФЗ dated 04/11/04.
7. The host Party's assigned amount shall have been calculated and recorded in accordance with the modalities for the accounting of assigned amounts.	Marrakech Accords, JI Modalities, §21(b)/24	OK	The Russian Federation's assigned amount has been calculated

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1. REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
			and recorded in the 4th National Communication dated 12/10/06.
8. The host Party shall have in place a national registry in accordance with Article 7, paragraph 4.	Marrakech Accords, JI Modalities, §21(d)/24	OK	Russian Federation has established the GHG Registry by the RF Government Decree N 215-p dated 20/02/06.
9. Project participants shall submit to the independent entity a project design document that contains all information needed for the determination.	Marrakech Accords, JI Modalities, §31	OK	OJSC "RITER" has submitted a PDD to Bureau Veritas Certification, which contains all information needed for determination.
10. The project design document shall be made publicly available and Parties, stakeholders and accredited observers shall be invited to, within 30 days, provide comments.	Marrakech Accords, JI Modalities, §32	OK	The PDD was made publicly available for comments on Bureau Veritas Rus site from 01 June 2009 till 30 June 2009.



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1. REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
11. Documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts, in accordance with procedures as determined by the host Party shall be submitted, and, if those impacts are considered significant by the project participants or the host Party, an environmental impact assessment in accordance with procedures as required by the host Party shall be carried out.	Marrakech Accords, JI Modalities, §33(d)	OK	Table 2, Section F
12. The baseline for a JI project shall be the scenario that reasonably represents the GHG emissions or removal by sources that would occur in absence of the proposed project.	Marrakech Accords, JI Modalities, Appendix B	OK	Table 2, Section B.2
13. A baseline shall be established on a project-specific basis, in a transparent manner and taking into account relevant national and/or sectoral policies and circumstances.	Marrakech Accords, JI Modalities, Appendix B	OK	Table 2, Section B.2
14. The baseline methodology shall exclude to earn ERUs for decreases in activity levels outside the project activity or due to force majeure.	Marrakech Accords, JI Modalities, Appendix B	OK	Table 2, Section B.2
15. The project shall have an appropriate monitoring plan.	Marrakech Accords, JI Modalities,	OK	Table 2, Section D



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1. REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
16. A project participant may be: (a) A Party involved in the JI project; or (b) A legal entity authorized by a Party involved to participate in the JI project.	§33(c)	JISCS "Modalities of communication of Project Participants with the JISCS" Version 01, Clause A.3	The Russian project will be authorized by the Host Party through the issuance of the approval for the project. Conclusion is pending a follow-up on CAR 01. Refer to Verifiers' Note in 1 above.



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"Utilization of associated petroleum gas (APG) at the Sredne-Khulymsk oil field, Western Siberia, Russia"**

Table 2 Requirements Checklist

CHECKLIST QUESTION	Ref.	MoV	COMMENTS	Draft Concil	Final Concil
A. General Description of the project					
1. A.1 Title of the project					
A.1.1. Is the title of the project presented?	1,2	DR	The title of the project is: "Utilization of associated petroleum gas (APG) at the Serginsky oil field, Western Siberia, Russia". Sectoral Scopes are 1, 10.	OK	
A.1.2. Is the current version number of the document presented?	1,2	DR	Original PDD Version 2.2. In the course of determination Versions 3.0, 3.1, and 4.1 were issued.	OK	
A.1.3. Is the date when the document was completed presented?	1,2	DR	PDD Version 2.2 is dated 14 May 2009. PDD Version 3.1 dated 21 July 2009. PDD Version 4.1 dated 4 August 2009	OK	



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A.2. Description of the project					OK	
A.2.1. Is the purpose of the project included?	1,2	DR	1	The project provides utilization of associated petroleum gas (APG) on modern gas power plant (GPP) with the total capacity 7,5 MW and on heating station (HS) with capacity 1,2 MW installed on Serginsky oil field (owner-JSC "RITTEK"), Oktyabrsky area, Khanty-Mansijsk Okrug - Yugra, Tumen oblast, Western Siberia, Russia. Generated energy (electrical and heat) ensures operation of approximately 80% of complex of the basic and supporting equipment on the oil wells and in well-exploiting settlement, and more than 50% of total generation deliveries into high-voltage. APG at the Serginsky oil field is obtained during the separation process at the booster pump station (UPN) located next to the new power plant and heating station. The situation existing prior to the starting date of the project is described as follows. The APG utilized within the Project was previously flared. Power production for the needs of the project owner was initially ensured from the regional electric grid, and heat mostly from		



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electric heating devices.	Under the Project, part of the APG (approximately 10,5 million m ³ per year) is consumed by the GPP and HS with the remaining APG flared as usual at the stack of the UPN.	The baseline scenario is described as electric energy consumption from external electric grids. Such scenario does not require investments. The history of the project is described as follows: a decision about the project realization was made by the RITEK Technical Board on 25/09/2003 with taking into consideration the financial benefits offered by JI mechanism; a contract on a feasibility study with the research and engineering institute NIPIGasPererabotka was signed on 29/09/2003; the feasibility study was issued in May 2004; a turn-key contract on the construction of the power plant with JSC "Zvezda-Energetika" was signed on 07/06/2007. The GPP and HS were commissioned in April 2009.
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A.2.2. Is it explained how the proposed project reduces greenhouse gas emissions?	1,2	DR	The project will reduce CO2 and CH4 emissions due to: - combustion of the APG in the efficient gas power engines, instead of less efficient gas flaring, - replacement of electric energy supplies from marginal power plants in Tyumen region by own electric energy production on APG fired GPP. <i>Note 1: The heat station component was withdrawn from the project as per PDD Version 4.1. The text related to this issue was shadowed throughout the Determination Protocol, as appropriate.</i> <i>Note 2: APG amount of 10,5 million m3 per year correspond to the year 2010.</i>	OK
A.3. Project participants				
A.3.1. Are project participants and Party(ies) involved in the project listed?	1,2	DR	OJSC «RITEK» is the project participant. Party A is the Russian Federation. Party B is not defined yet. Conclusion is pending a follow-up on CAR 01.	Pending
A.3.2. The data of the project participants are presented in tabular format?	1,2	DR	The data is presented in the tabular format as	OK



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				per [2].	
A.3.3. Is contact information provided in Annex 1 of the PDD?	1,2	DR	The contact information is provided in PDD Annex 1.		OK
A.3.4. Is it indicated, if it is the case, if the Party involved is a host Party?	1,2	DR	Russian Federation is indicated as a host Party in accordance with the mandatory tabular format [2].		OK
A.4. Technical description of the project					
A.4.1. Location of the project/activity					
A.4.1.1. Host Party(ies)	1,2	DR	The Russian Federation.		OK
A.4.1.2. Region/State/Province etc.	1,2	DR	Please refer to PDD Section A.4.1.2.		OK
A.4.1.3. City/Town/Community etc.	1,2	DR	The project is located in the Oktyabrsky district (with its centre in the town of Oktyabrskoye), Khanty-Mansijsky Autonomous Okrug (KhMAO) -Yugra, Tumen region, Western Siberia, 50 km north-west from the municipal formation the city of Nyagan (see fig. 3).		OK
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)	1,2	DR	Site latitude - 65°27"56". Site longitude - 65°32'59".		OK
A.4.2. Small-scale project type(s) and category(ies)					
A.4.2.1. Are the SSC project type(s) and category specified	1,2	DR	Type III is reasonably justified (emission	CAR 02	OK



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and justified?				reduction less or equal 60 kt CO2 equivalent annually).	CAR 02. The SSC category is not specified.			
A.4.2.2. Does the project meet relevant JI SSS threshold(s) during the whole crediting period?	1,2	DR	I	Annual emission reductions are less than 60 kt CO2 equivalent annually throughout the whole crediting period.		OK		
A.4.3. Technology(ies) to be employed, or measures operations or actions to be implemented by the project								
A.4.3.1. Does the project design engineering reflect current good practices?	1,2	DR	I	The project design engineering represents current good practices. The gas power plant (GPP) consists of five Cummins QSV 91G gas fired generating units with installed electrical capacity 1.5 MW each. The heat station (HS) is equipped with three furnaces Paromat-Simplex with installed thermal capacity 405 kW each. The technology and operations to be implemented by the project as well as relevant technical data and the power plan implementation schedule, are described.		OK		
A.4.3.2. Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	1,2	DR		The project uses the state-of-art technology of APG collection, treatment and utilization for power generation in the modern gas fired reciprocating engines.		OK		



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A.4.3.3. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	1,2	DR	The project technology is unlikely to be substituted by other or more efficient technologies within the project period.	OK
A.4.3.4. Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	1,2	DR	The new power generating equipment is operated by its supplier, therefore initial training and maintenance efforts were not needed. The heating station is an user-friendly facility, which did not require special training for its operators.	OK
A.4.3.5. Does the project make provisions for meeting training and maintenance needs?	1,2	DR	Refer to A.4.3.4.	OK
A.4.4. 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.4.4.1. Is it stated how anthropogenic GHG emission reductions are to be achieved? (This section should not exceed one page)	1,2	DR	It is stated in PDD Section A.4.4. that in the baseline scenario, 10,5 million m ³ of APG will continue to be flared annually at the Serginskye booster pumping station. In the Project scenario, this volume of APG is captured and combusted in the installed gas engines and heating station to cover the needs	OK



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				<p>of the Serginsky oil field in electric and heat energy.</p> <p>In the baseline scenario, the electric energy for the electrical and thermal needs of the Serginsky oil field would continue to come from the regional grid power plants, which fire natural gas and APG from other oil fields.</p> <p>According to PDD Section A.4.4 (pp. 12,13) GHG emission reductions due to the project, will occur in two locations:</p> <ul style="list-style-type: none"> - at the Serginsky oil field where the captured APG that was previously flared will be combusted in the gas engines with much higher efficiency than in the flare. This will generate the emission reductions due to the combustion of the unburned fraction of the APG that was previously directly escaping into the atmosphere from flare stack. - at the marginal grid power plants in the Tumen region due to the replacement of their supplies by the GPP electric production. 	
A.4.4.2. Is it provided the estimation of emission reductions over the crediting period?	1,2	DR	Total emission reductions over the crediting period is estimated to be 151040 tonnes of CO2 equivalent.	Pending	OK
			Conclusion is pending a response to CAR 03, CAR 10, CAR 11.		



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A.4.4.3. Is it provided the estimated annual reduction for the chosen credit period in tCO ₂ e?	1,2	DR	The annual average of emission reductions over the crediting period is estimated to be 37760 tonnes of CO2 equivalent. Conclusion is pending a response to CAR 03, CAR 10, CAR 11.	Pending	OK
A.4.4.4. Are the data from questions A.4.3.2 and A.4.3.3 above presented in tabular format?	1,2	DR	The data is presented in the tabular format. Refer to PDD Section A.4.4.1.	OK	
A.4.4.5. Is it confirmed and shown that the proposed JI SSC project is not a debundled component of a larger project?	1,2	DR	This is explained in PDD Section A.4.5.	OK	
A.5. Project approval by the Parties involved					
A.5.1. Are written project approvals by the Parties involved attached?	1,2	DR	Conclusion is pending a follow-up on CAR 01.	Pending	
B. Baseline					
B.1. Description and justification of the baseline chosen					
B.1.1. Is the chosen baseline described?	1,2	DR	The baseline is clearly formulated, namely "Continuation of APG flaring at the Serginsky booster pumping station and electricity supplies of RITEK production facilities from the grid (and partly from diesel-generators)". Key information and data used to establish the	CAR 03	OK



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<p>baseline is presented in tabular form as per [2]. The parameters are: APG volume, APG composition, electric energy supply to consumers of the Serginsky oil field, and CO2 emission factor for grid connected plants. APG volume is calculated ex ante by the given values of electric energy production, heat energy production, and given values of APG specific rates for production electricity at GPP and heat at HS.</p> <p>CAR 03. Consumption of electric energy from the grid 43,4 GWh in the baseline scenario (Table 12.B on p. 33) exceeds the electrical and thermal needs of the Serginsky oil field by 15,3 GWh which are sold to the grid (Table 6 on p. 22). The amount of electricity from grid 15,9 GWh in Table 6 does not fit the energy balance. The value of the actual oil field electrical needs is not disclosed.</p> <p>B.1.2. Is it justified the choice of the applicable baseline for the project category?</p>	<p>The chosen baseline is selected with the use of the analysis including the steps: 1) listing of alternatives to the project scenario, 2) identifying of the most plausible alternatives through screening of the alternatives⁶⁶ based on technological and economical considerations, 3) investment analysis taking</p>
	OK



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			into account related financial barriers. The chosen baseline is justified as the most economically or financially attractive alternative scenario.	
B.1.3. Is it described how the methodology is applied in the context of the project?	1,2, 3,4	DR	Following Annex B of the JI Guidelines [3] and JISC "Guidance for baseline setting and monitoring" [4] the PDD developer established its own approach to define and justify the selected baseline scenario. It is described in PDD Sections B.1 and B.2.	OK
B.1.4. Are the basic assumptions of the baseline methodology in the context of the project activity presented (See Annex 2)?	1,2,5	DR I	<p>Basic assumptions of the baseline methodology are as follows:</p> <ul style="list-style-type: none"> - consumption of electric and thermal energy, APG consumption and APG composition in the baseline and project scenarios are identical; - fuel consumption by the GPP and HS are calculated by operational data; - black firing mode is taken for APG flaring; - methane emissions due to incomplete and black firing of APG in flares are calculated in accordance with the recognized NII Atmosphere Methodology [5] approved by the State Committee for Environmental Protection; - technological leaks at APG collection, treatment and transportation are taken equal in the baseline and project scenario and therefore 	OK



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				neglected; - N2O emissions are neglected; All these assumptions were checked by the verifiers and found appropriate.		
B.1.5. Is all literature and sources clearly referenced?	1,2	DR	Key literature and sources are referenced.	OK		
B.2. Description of how the anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the JI project						
B.2.1. Is the proposed project activity additional?	1,2, 6	DR I	To prove the project additionality, an approach was used similar to the provisions of the CDM "Combined tool to identify the baseline scenario and demonstrate additioinality" [6]. After screening of six alternatives, two alternative scenarios were selected as viable, namely: - Scenario 1 Continuation of APG flaring at the Serginsky booster pumping station and electricity supplies of RITEK production facilities from the grid (and partly from diesel-generators). Scenario 2 The proposed Project presuming the reduction of APG flaring, construction of the GPP and power generation for the local needs using the APG, that is currently	CAR 04	OK	



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		<p>implemented by the Project Owner.</p> <p>Scenarios 1 and 2 do not contradict with the mandatory legislation and regulations. The license agreement for the Serginsky oil field development does not contain any condition for APG utilization. No particular barriers (except financial) prevent the implementation of Scenario 2.</p> <p>Analysis of investments and financial barriers has demonstrated that the proposed project activity is not most economically or financially attractive alternative scenario (ref. to Tables 6 and 7 on p. 22-23). Therefore, the scenario with APG flaring was taken as the baseline scenario.</p> <p>CAR 04. The project generates revenues from sales of electricity to the grid, so the sensitivity analysis is due.</p> <p>Similar activities, which were considered in the context of common practice analysis, were financially competitive to the available alternatives - the consumption of the electric energy from the grid and/or own power generation on diesels - and therefore were implemented. The project activity, on the contrary, is not financially attractive as</p>
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			compared with the purchase of the electricity from the available electrical networks. Revenues from sales of excessive electrical energy to the grid do not make the project profitable.	
			Thus, the project provides emission reductions that is additional to any that would otherwise occur, and yet it financially additional to the baseline scenario.	
B.2.2. Is the baseline scenario described?	1,2	DR	Refer to PDD Sections B.1 and B2.	OK
B.2.3. Is the project scenario described?	1,2	DR	Refer to PDD Sections A.4.4, B.1 and B.2.	OK
B.2.4. Is an analysis showing why the emissions in the baseline scenario would likely exceed the emissions in the project scenario included?	1,2	DR	Please refer to PDD Table 4 on p. 13 and Table 8 on p. 24.	OK
B.2.5. Is it demonstrated that the project activity itself is not a likely baseline scenario?	1,2	DR	Please refer to PDD Section B.2. The project activity without registration under JI mechanism is not a likely baseline scenario since it is not most economically and financially attractive as compared with the chosen baseline scenario.	OK
B.2.6. Are national policies and circumstances relevant to the baseline of the proposed project activity summarized?	1,2, 7	DR	Succinct information about relevant regulations in the Russian Federation as to APG (methane) emission is presented in PDD	CAR 05 OK



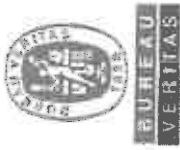
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				Sections A.4.4 and B.1. CAR 05. The RF Government Decree # 07 dated 08/01/2009 [7] is not summarized.		
B.3. Description of how the definition of the project boundary is applied to the project activity						
2. B.3.1. Are the project's spatial (geographical) boundaries clearly defined?	1,2,4	DR	CAR 06. Connection with the regional electric grid is not shown on Figure 10 Project Boundary (ref. to PDD Section B.3). All gases and sources/sinks included are not explicitly stated; exclusions of any sources/sinks related to the baseline or the project should be justified (ref. [4] paragraph 13).	CAR 06	OK	
B.4. Further baseline information, including the date of baseline setting and the name(s) of the person(s)/entity(ies) setting the baseline						
B.4.1. Is the date of the baseline setting presented (in DD/MM/YYYY)?	1,2	DR	CAR 07. The date of the baseline setting is not specified.	CAR 07	OK	
B.4.2. Is the contact information provided?	1,2	DR	LLC «Meidunarodnaya Gruppa «Sigma» Moscow, Russian Federation Tel. +7 (495) 7753232 Fax +7 (495) 7753232 e-mail: sigma@effort.ru		OK	
B.4.3. Is the person/entity also a project participant listed in Annex 1 of PDD?	1,2	DR	It is indicated that LLC «Meidunarodnaya Gruppa «Sigma» is not the project participant.		OK	



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C.	Duration of the project and crediting period						
C.1.	Starting date of the project						
C.1.1.	Is the project's starting date clearly defined?	1,2	DR	CAR 08. May 1, 2005 is defined as the project starting date, which does not follow from the Implementation Schedule in Table 2 on p. 12.	CAR 08	OK	
C.2.	Expected operational lifetime of the project						
C.2.1.	Is the project's operational lifetime clearly defined in years and months?	1,2	DR	The lifetime is defined as 20 years (240 months).		OK	
C.3.	Length of the crediting period						
C.3.1.	Is the length of the crediting period specified in years and months?	1,2	DR	It is specified as 48 months starting on 01/01/2009. CAR 09. The length of the crediting period in years is not specified.	CAR 09	OK	
D.	Monitoring Plan						
D.1.	Description of monitoring plan chosen						
D.1.1.	Is the monitoring plan defined?	1,2, 4,5, 8,9	DR I	The monitoring plan is established based on the own approach which is described in PDD Section D.1. Elements of this approach are as follows: - CO ₂ and CH ₄ emissions from APG flaring were estimated by the "NII Atmosphere"	CAR 10	OK	



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<p>Methodology [5] approved by the State Committee for Environmental Protection.</p> <ul style="list-style-type: none"> - CO₂ emissions from APG combustion at AM 0009, as the product of APG mass consumption, the average mass content of carbon in APG, and the ratio of molecular weights CO₂ and C (44/12). - The baseline emission factor for the Tyumen grid is observed to have been estimated with the use of CDM "Tool to calculate the emission factor for an electricity system" [8] for calculation of a combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) factors. Calculation of CM (grid emission factor) is based on the study and data on Tumen power system provided by the Energy Scientific Research Institute named after G.M. Krzhizhanovsky (OAO "ENIN"). The baseline study is described in Annex 2. <p>CAR 10. Reference to ACM0002 [9] as regards CM estimation is observed as irrelevant since this tool does not allow to calculate CM and yet it is not applicable to the fossil fuel fired plants. Information about fuel</p>
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				and specific fuel rate for NVGRES (Nizhnevartovsk) in Annex 2 is incorrect. Data for the existing Tyumen Combine Cycle Power Plant 220 MW as well as for planned to be built power plants is not included.		
D.1.2. Option 1 – Monitoring of the emissions in the project scenario and the baseline scenario.	1,2	DR	Refer to D.1.1.	OK		
D.1.3. Data to be collected in order to monitor emissions from the project, and how these data will be archived.	1,2	DR	Data to be monitored are presented in PDD Section D.2. This is: electric energy supply to consumers of the Serginsky oil field, heat delivery to local consumers, APG volume, and APG composition. Grid emission factor was included into the parameters of the baseline scenario (ref. to B.1.1). Data will be archived electronically and in the monitoring work book.	OK		
D.1.4. Description of the formulae used to estimate project emissions (for each gas, source etc.; emissions in units of CO ₂ equivalent).	1,2	DR	The formulae for the estimation of CO ₂ project emissions from APG combustion in GPP and HS are presented in PDD Section D.1.1.1 Tables 10.1 - 10.3. The formulae are observed as correct.	OK		
D.1.5. Relevant data necessary for determining the baseline of anthropogenic emissions of greenhouse gases by sources within the project boundary, and how such data will be collected	1,2,5	DR	Data to be monitored are presented in PDD Section B.1 (refer to B.1.1). Metered data is the electric energy supply from the regional grid, APG composition and APG volumetric	OK		



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and archived.	flow.	Estimation of CO ₂ emissions from APG flaring is carried out by the "NII Atmosphere" Methodology [5]. Grid emission factor is taken from the baseline study described in PDD Annex 2.	CAR 11	OK
D.1.6. Description of the formulae used to estimate baseline emissions (for each gas, source etc, emissions in units of CO ₂ equivalent).	1,2, 4,5	DR	<p>Baseline emissions are calculated as the sum of emissions from complete APG combustion in the flare, unburned CH₄ (both calculated by the "NII Atmosphere" Methodology [5]) and emissions from grid power plants. The Methodology [5] is described in Annex 3.</p> <p>The formulae are presented in PDD Section D.1.1.2 Tables 11.1 – 11.6 and Tables 12.A, 12.B, 12.C. They allow to calculate three components of baseline emissions:</p> <ul style="list-style-type: none"> - CH₄ emissions due to incomplete combustion of APG in the flare; - CO₂ emissions from complete combustion of APG in the flare; - CO₂ emissions from electricity generation in the regional grid. 	CAR 11

CAR 11. Formula 7 in BE1 contains an arithmetic operation bug: instead of ratio of component density to the APG density, their



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				product is calculated. This results in errors in further calculations of baseline and project emissions. The unavailability of the calculation tool, used by the PDD consultant, did not enable the verifier to instantly reveal this error.	
D.1.7. Option 2 – Direct monitoring of emissions reductions from the project (values should be consistent with those in section E)	1,2	DR	Not applicable.		OK
D.1.8. Data to be collected in order to monitor emission reductions from the project, and how these data will be archived.	1,2	DR	Not applicable.		OK
D.1.9. Description of the formulae used to calculate emission reductions from the project (for each gas, source etc; emissions/emission reductions in units of CO2 equivalent).	1,2	DR	Not applicable.		OK
D.1.10. If applicable, please describe the data and information that will be collected in order to monitor leakage effects of the project.	1,2	DR	The leakages are reasonably considered negligible (refer to PDD Section D.1.2).		OK
D.1.11. Description of the formulae used to estimate leakage (for each gas, source etc.; emissions in units of CO2 equivalent).	1,2	DR	Not applicable.		OK
D.1.12. Description of the formulae used to estimate emission reductions for the project (for each gas, source etc.; emissions in units of CO2 equivalent).	1,2	DR	The formula is given in Table 13.		OK



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D.1.13. Is information on the collection and archiving of information on the environmental impacts of the project provided?	1,2	DR	A four level system for the monitoring of environmental impacts has been established at the Gas Power Plant. This system allows monitoring, reporting and controlling of the maximum concentrations of the hazardous substances emissions such as CH4, NOx, and CO. This was checked during the interviews with the PP.	OK
D.1.14. Is reference to the relevant host Party regulation(s) provided?	1,2	DR	The host Party regulations are stipulated in the Federal Law "On protection of atmospheric air" N 96-ФЗ dated 04/05/1999. The question is not applicable to SSC [2].	OK
D.1.15. If not applicable, is it stated so?	1,2	DR	Refer to D.1.14.	OK
D.2. Qualitative control (QC) and quality assurance (QA) procedures undertaken for data monitored				
D.2.1. Are there quality control and quality assurance procedures to be used in the monitoring of the measured data established?	1,2	DR	Refer to PDD Section D.3. The measurement devices are envisaged to be periodically calibrated as per the requirement of the Environmental Management System which is certified by Bureau Veritas Certification to ISO 14001:2004.	OK

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D.3. Please describe of the operational and management structure that the project operator will apply in implementing the monitoring plan	1,2	DR	Refer to PDD Section D.4.	OK
D.3.1. Is it described briefly the operational and management structure that the project participant(s) will implement in order to monitor emission reduction and any leakage effects generated by the project				
D.4. Name of person(s)/entity(ies) establishing the monitoring plan	1,2	DR	LLC «Mejdunarodnaya Gruppa «Sigma» Moscow, Russian Federation Tel. +7 (495) 7753232 Fax +7 (495) 7753232 e-mail: sigma@effort.ru	OK
D.4.1. Is the contact information provided?				
D.4.2. Is the person/entity also a project participant listed in Annex 1 of PDD?	1,2	DR	It is indicated in PDD Section B.4 that LLC «Mejdunarodnaya Gruppa «Sigma» is not the project participant (ref. to B.4.3).	OK
E. Estimation of greenhouse gases emission reductions				
E.1. Estimated project emissions				
E.1.1. Are described the formulae used to estimate anthropogenic emissions by source of GHGs due to the project?	1,2	DR	The formulae are presented in PDD Section D.1.1.1 Tables 10.1 – 10.3. Refer to D.1.4.	OK



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E.1.2. Is there a description of calculation of GHG project emissions in accordance with the formula specified in for the applicable project category?	1,2	DR	Calculations of GHG emissions by the formulae in Tables 10.1-10.3 are shown in PDD Tables 14 – 16. Conclusion is pending a response to CAR 03, CAR 10, CAR 11.	Pending	OK
E.1.3. Have conservative assumptions been used to calculate project GHG emissions?	1,2	DR	Taking account of electrical transportation losses provides the conservatism in estimation of project emissions.	OK	
E.2. Estimated leakage					
E.2.1. Are described the formulae used to estimate leakage due to the project activity where required?	1,2	DR	Refer to D.1.10.	OK	
E.2.2. Is there a description of calculation of leakage in accordance with the formula specified in for the applicable project category?	1,2	DR	Not applicable	OK	
E.2.3. Have conservative assumptions been used to calculate leakage?	1,2	DR	Not applicable	OK	
E.3. The sum of E.1 and E.2.					
E.3.1. Does the sum of E.1. and E.2. represent the small-scale project activity emissions?	1,2	DR	The project falls under category of small scale projects. As no leakage is expected, E1+E2=E1.	OK	
E.4. Estimated baseline emissions					
E.4.1. Are described the formulae used to estimate the	1,2	DR	The formulae are presented in PDD Section	OK	



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anthropogenic emissions by source of GHGs in the baseline using the baseline methodology for the applicable project category?				D.1.1.2 Tables 11.1 – 11.6 and Tables 12.A, 12.B, 12.C. Please refer to D.1.6.		
E.4.2. Is there a description of calculation of GHG baseline emissions in accordance with the formula specified for the applicable project category?		1,2	DR	Calculations of GHG emissions by the formulae in Tables 11.1 – 11.6, 12.A – 12.C are shown in PDD Tables 17, 18. Conclusion is pending a response to CAR 03, CAR 10, CAR 11.	Pending	OK
E.4.3. Have conservative assumptions been used to calculate baseline GHG emissions?		1,2	DR	Conservative assumptions were not used.	OK	
E.5. Difference between E.4. and E.3. representing the emission reductions of the project						
E.5.1. Does the difference between E.4. and E.3. represent the emission reductions due to the project during a given period?		1,2	DR	Yes, it does. Refer to PDD Section E.5.	OK	
E.6. Table providing values obtained when applying formulae above						
E.6.1. Is there a table providing values of total CO₂ abated?		1,2	DR	Table 19 on p. 42 provides the total values of project emissions, leakage, baseline emissions, and emission reductions in accordance with the JI reporting format. Conclusion is pending a response to CAR 03, CAR 10, CAR 11.	Pending	OK



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F. Environmental Impacts			
F.1. Documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party			
F.1.1. Has an analysis of the environmental impacts of the project been sufficiently described?	1,2	DR	Analysis of the environmental impacts of the project at the construction stage and during the operation period is presented in PDD Section F1.
F.1.2. Are there any host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	1,2, 3.5	DR I	EIA was made in Volume 4 of the Technical Design of the Serginsky oilfield GPP [3] (in possession of the verifiers). The positive opinion on the project by the State Expertise was issued [5].
F.1.3. Are the requirements of the National Focal Point being met?	1,2, 10, 11	DR	The requirements of the National Focal Point to present the EIA should be met before the submission of the project to the Coordination Centre of National Focal Point [10, 11].
F.1.4. Will the project create any adverse environmental effects?	1,2, 3.5	DR I	Parameters of the sources of the adverse emissions are listed in Volume 4 of the Technical Design of the Serginsky oilfield GPP [3]. This document passed the State Expertise [5].
F.1.5. Are transboundary environmental impacts	1,2	DR	The project activity has no transboundary
			OK



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considered in the analysis?		environmental impacts.				
F.1.6. Have identified environmental impacts been addressed in the project design?	I	1,2	DR	Refer to F.1.2.		OK
G. Stakeholders' comments						
G.1.Information on stakeholders' comments on the project, as appropriate						
G.1.1. Is there a list of stakeholders from whom comments on the project have been received?	1,2	DR	I	There is no information about any comments from stakeholders.		OK
G.1.2. The nature of comments is provided?	1,2	DR		Refer to G.1.1.		OK
G.1.3. Has due account been taken of any stakeholder comments received?	1,2	DR		Refer to G.1.2		OK



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Table 4 Legal requirements

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
1. Legal requirements					
1.1. Is the project activity environmentally licensed by the competent authority?	1, <u>6</u>	DR	The application for the issuance of the Permit for Air Emission from GPP at Serginsky oil field was sent to the North-Ural Department of Rostekhnadzor [6]. Company pays for the environment pollution in accordance with the existing legislation.	OK	OK
1.2. Are there conditions of the environmental permit? In case of yes, are they already being met?	1	DR	Please refer to 1.1 above.		OK
1.3. Is the project in line with relevant legislation and plans in the host country?	1	DR	Yes, the project is in line with relevant legislation and plans in the host country.	OK	OK



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Table 5 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3	Summary of project owner response	Determination team conclusion
CAR 01 The project has no approvals of the Parties involved.	1 Table 1		
CAR 02 The SSC category is not specified.	A.4.2.1	Corrected. Project category N: Other types of small-scale projects (as per FCCC/KP/CMP/2005/8/Add. 1 Page 52). Refer to PDD Section A.4.2.	The CAR is closed based on the adequate addition made to PDD.
CAR 03 Consumption of electric energy from the grid 43,4 GWh in the baseline scenario (Table 12-B on p. 33) exceeds the electrical and thermal needs of the Serginsky oil field by 15,3 GWh which are sold to the grid (Table 6 on p. 22). The amount of electricity from grid 15,9 GWh in Table 6 does not fit the energy balance. The value of the actual oil field electrical needs is not disclosed.	B.1.1	Corrected. The issues of heating needs coverage and electric energy sale are withdrawn from the project. Values of electric energy production, taking into account the electric power consumed by GPP for own needs were corrected in accordance with the data provided by the Project Owner. Tables 6,7 on p.22. Table 12-B on p.33	This CAR was issued for the situation when: - in baseline scenario, the electric energy consumed from the electric grid was considered to be used to cover both electrical and thermal needs of the Serginsky oil field; - in project scenario, a part of the produced electric energy was considered to be sold to the electric grid.



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Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3	Summary of project owner response	Determination team conclusion
CAR 04 The project generates revenues from sales of electricity to the grid, so the sensitivity analysis is due.	B.2.1	Corrected: Expenses on Electric power acquisition are included into the investment analysis (NPV) with the relative sensitivity analysis taking into account the power price deviations added	With sale of electric energy withdrawn from the project, the need to provide the sensitivity analysis was not revoked since the project generated saving of costs due to the replacement of purchased electric energy (baseline) by the produced energy (project). The provided sensitivity analysis is observed as sufficient.



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Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3	Summary of project owner response	Determination team conclusion
CAR 05 The RF Government Decree # 07 dated 08/01/2009 [7] is not summarized.	B.2.6	Refer to PDD Section B.2, p.22.	<p>The CAR is closed based on the appropriate addition made to PDD.</p> <p>The implications from the issuance of RF Government Decree #7 are duly summarized.</p> <p>The CAR is closed based on the appropriate addition made to PDD</p>
CAR 06 Connection with the regional electric grid is not shown on Figure 10 Project Boundary (ref. to PDD Section B.3). All gases and sources/sinks included are not explicitly stated; exclusions of any sources/sinks related to the baseline or the project should be justified (ref. [4] paragraph 13).	B.3.1	Corrected Connection with the regional electric grid added to the Figure 10. The table with emissions sources adapted to the project (see page 26) PDD Section B.3 on p.25-26, Figure 10.	<p>The CAR is closed based on the appropriate additions made to PDD</p>
CAR 07 The date of the baseline setting is not specified.	B.4.1	Refer to PDD Section B.4 p. 26. Date of the baseline study 21/11/2008	<p>The CAR is closed based on the appropriate addition made to PDD.</p>
CAR 08 May 1, 2005 is defined as the project starting	C.3.1	Corrected: starting date of the project was changed to September 25, 2003	<p>On 25 September 2003 a decision was taken by the meeting of the RITEK</p>



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Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3	Summary of project owner response	Determination team conclusion
date, which does not follow from the Implementation Schedule in Table 2 on p. 12).		Refer to PDD Section C.1 p.26.	Technical Board to start the project (the minutes of the meeting is available). According to the Russian corporate policies, such decision is the genuine starting date of any investment project. Take note that a contract on a feasibility study was signed already in a few days.
CAR 09 The length of the crediting period in years is not specified.	C.3.1	Refer to PDD Section C.3 p. 27 45 months (3 years 9 months) starting on 06.04.2009	The CAR is closed based on the appropriate addition made to PDD.
CAR 10 Reference to ACM0002 [9] as regards CM estimation is observed as irrelevant since this tool does not allow to calculate CM and yet it is not applicable to the fossil fuel fired plants. Information about fuel and specific fuel rate for NVGRES (Nizhnevartovsk) in Annex 2 is	D.1.12	Reference to the right "Tool to calculate the emission factor for an electricity system" is given. Information for NVGRES is corrected, reference to the source is given. Data for the existing Tyumen Combine Cycle Power Plant 220 MW is included. Inclusion of data	The corrections made are observed as appropriate. Taking into consideration of build margin [8] resulted in reduction of grid emission factor by 1,3% from 531 (operational margin) to 524 tCO2/MWh (combined margin). This adds conservatism to



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Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3	Summary of project owner response	Determination team conclusion
incorrect. Data for the existing Tyumen Combine Cycle Power Plant 220 MW as well as for planned to be built power plants is not included.	for planned to be built power plants is considered inappropriate due to the uncertain situation as regards finance. Refer to PDD Annex 2.	estimation of baseline emissions. The CAR is closed based on due corrections made in PDD.	
CAR 11 Formula 7 in BE1 contains an arithmetic operation bug: instead of ratio of component density to the APG density, their product is calculated. This results in errors in further calculations of baseline and project emissions. The unavailability of the calculation tool, used by the PDD consultant, did not enable the verifier to instantly reveal this error.	D.1.6 The error was corrected. The calculation tool was provided to verifiers.	Baseline and project emissions were recalculated. The calculations were checked and found correct. The CAR is closed based on due correction made to PDD.	



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Appendix B: Verifiers CV's

Mr. Flavio Gomes:

Lead Verifier

Bureau Veritas Certification Holding SAS – Global Manager for Climate Change

Flavio Gomes is a Chemical and Safety Engineer graduated from «UNICAMP – Universidade Estadual de Campinas», with a MSc title in Civil Engineer (Sanitation). He spent four years at RIPASA Pulp and Paper as Environmental Process Engineer. He is, since 2006 the Global Manager for Climate Change. Previously and since 1997, he was senior developer for Bureau Veritas Consulting in fields of Environment, Health, Safety, Social Accountability and Sustainability audit and management systems. He also acted as Clean Development Mechanism verifier, and Social/Environmental Report auditor, in the name of Bureau Veritas Certification. Flavio is pursuing his PhD on Energy Management at the Imperial College – London.

Leonid Yaskin, PhD (thermal engineering)

Verifier.

Bureau Veritas Certification Rus General Director- Lead Auditor, Lead Tutor, Verifier

He has over 30 years of experience in heat and power R&D, engineering and management, environmental science, and investment analysis of projects. He worked in Krrzhizhanovsky Power Engineering Institute, All-Russian Teploelectroproject Institute, JSC Energoperspectiva. He worked for 8 years on behalf of European Commission as a monitor of Technical Assistance Projects. He is a Lead auditor of Bureau Veritas Certification for Quality Management Systems (IRCA registered), Environmental Management System (IRCA registered), Occupational Health and Safety Management System (IRCA registered). He performed over 250 audits since 2002. Also he is a Lead Tutor of the IRCA registered ISO 14000 EMS Lead Auditor Training Course, and a Lead Tutor of the IRCA registered OHSAS 18001 Lead Auditor Training Course. He is an Assuror of Social Reports. He has undergone intensive training on Clean Development Mechanism /Joint Implementation and was/is involved in the determination of 20 JI projects.

Ashok Mammen - PhD (Oils & Lubricants).

Bureau Veritas Certification - Internal Technical Reviewer

Over 20 years of experience in chemical and petrochemical field. Dr. Mammen is a lead auditor for environment, safety and quality management. He is also a lead verifier for GHG projects and has been involved in the validation and verification processes of more than 60 CDM/JI and other GHG projects.