



**Overgas Inc. AD**

Reduction of greenhouse gases  
by gasification of Sofia

Determination Report

KPMG Certification BV  
Amstelveen, March 2004  
OVGAS3/EK/sm



***Determination Statement and Report***  
*Reduction of GHG's by gasification of*  
*Sofia Municipality*  
*Overgas Inc. AG*  
*25 May 2004*

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***Determination Statement and Report***  
*Reduction of GHG's by gasification of*  
*Sofia Municipality*  
*Overgas Inc. AG*  
*25 May 2004*

# 1 **Determination Statement**

## **Introduction, responsibilities and scope**

The management of Overgas Inc. AD asked us to validate the Project Design Document (PDD) of Reduction of Greenhouse Gases by Gasification of Sofia Municipality.

The management of Overgas Inc. AD is responsible for the preparation of the PDD in accordance with Article 6 of the Kyoto Protocol and the Guidelines for the implementation of Article 6 of the Kyoto Protocol in the Marrakech Accords and for the calculation of the baseline emissions and for the estimation of the project emissions and the forecasted emission reductions.

Our responsibility is to issue a determination statement on whether the PDD has been prepared in accordance with Article 6 of the Kyoto Protocol and the Guidelines for the implementation of Article 6 of the Kyoto Protocol in the Marrakech Accords and on the assumptions and methods applied for the calculation of the baseline emissions and for the estimation of the project emissions and the forecasted emission reductions.

## **Activities Undertaken**

Our activities included:

- assessment of PDD in relation to compliance with Article 6 of the Kyoto Protocol and the Guidelines for the Implementation of Article 6 of the Kyoto Protocol in the Marrakech Accords;
- on site interviews with the staff in Overgas Inc. AD involved in the preparation of the PDD and the collection of the reported data;
- assessment of the internal documents used for preparing the Baseline Study;
- review of the applied assumptions and methods for the calculation of the baseline emissions and for the estimation of the project emissions and the forecasted emission reductions. This review was limited to inquiries of company personnel, analytical procedures applied to the emission data and to the proper application of assumptions.



### **Determination Opinion**

In our opinion, the PDD has been properly prepared on the basis of Article 6 of the Kyoto Protocol and the guidelines for the implementation of Article 6 of the Kyoto Protocol in the Marrakech Accords<sup>1</sup>.

Based on our activities undertaken, assuming the project will be realized, nothing came to our attention that causes us to believe that the applied assumptions and methods do not provide a reasonable basis for the forecasted emission reductions compared to the selected most likely baseline scenario.

Actual emission reductions may differ from the forecast since anticipated events do not always occur as expected.

Amstelveen, 25 May 2004

**Ing. J.J.M. Laan**

*KPMG Certification BV*

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<sup>1</sup> Document reference FCCC/CP/2001/13/Add.2

## **2 Introduction**

Overgas has commissioned KPMG Certification to validate the Project Design Document of the Joint Implementation Project related to the reduction of CO<sub>2</sub> emissions in Sofia.

The project aims in the reduction of CO<sub>2</sub> emissions by switching from carbon rich solid and liquid fuels to natural gas by industries, public and administrative buildings and households. The expected CO<sub>2</sub> emissions reduction will be the result of investments in a main gas branch and gas distribution networks.

This chapter describes the objective, scope, and determination methodology and determination team for this determination. Key data are included in Annex A.

### **2.1 Objective**

The aim of this determination is to evaluate the planned project activity against the requirements of the JI as set out in decision FCCC/CP/2001/13/Add.2 of 21 January 2002 on the basis of the PDD developed by the project proponent, Overgas.

Also the requirements of Senter Internationaal, the potential buyer of any ERU's resulted from this project are taken into account. These requirements are set out in the Operational Guidelines for Project Design Documents of Joint Implementation Projects (volume 1: General guidelines and volume 2: Baseline studies and monitoring plans for specific project categories) of June 2003.

### **2.2 Scope**

The scope of this determination consists of assessing the following elements of the PDD against the requirements set out by UNFCCC and Senter Internationaal respectively.

The following elements of the PDD are evaluated. The results thereof are described in chapter 3.

- (i) Baseline study. The baseline study is intended to assess the level of greenhouse gas emissions attributable to human activities that would have occurred without the project. The baseline study also assesses the level of greenhouse gas emissions that will occur after implementation of the project.
- (ii) Monitoring plan, describing which data will be collected for monitoring purposes. The monitoring plan includes a description of the quality assurance and control provisions for monitoring, collecting and reporting.
- (iii) Environmental Impacts, providing documentation on the analysis of environmental impacts of the project. If the impacts are considered important, conclusions and supporting documentation of an environmental impact assessment has to be provided. The environmental impact assessment has to be

undertaken in accordance with the procedures of the country where the project is implemented.

- (iv) Stakeholder comments. The international stakeholder comments have been collected on the basis of a 30 day publication of the project design document on the CarbonCredits.nl website. The national stakeholder comments have been included in the PDD.

On the basis of the provided PDD and of the evaluation thereof (see above), we have formed an opinion on the basis of the following criteria (described in chapter 4):

- The relevance of the defined project boundaries, assuring that the covered greenhouse gas emissions appropriately reflect the greenhouse gas emissions of the project and that all relevant greenhouse gases have been taken into account;
- The completeness of assumptions, data, references and calculations applied in the definition of:
  - Project boundaries;
  - The emission level that would occur in the absence of the project;
  - The emission level that is likely to occur upon completion of the project;
  - Inclusion of all greenhouse gas emission sources and activities within the defined project boundaries, with any exclusions stated and specified;
  - Leakage – whether the project might in a net change of greenhouse gas emissions outside the project boundaries;
  - Additionality – whether the project activity is expected to result in reduction of greenhouse gas emissions that are additional to any that would occur in the absence of the proposed project.
- The consistency of the applied methodology and input data with:
  - The Marrakesh accords of November 2001, Draft decision -/CMP.1 (Article 6);
  - The “Operational Guidelines for Project Design Documents of Joint Implementation Projects (volume 1: General guidelines and volume 2: Baseline studies and monitoring plans for specific project categories) of the Ministry of Housing, Spatial Planning and Environment of the Netherlands, June 2003.
- The transparency of the baseline study, based on:
  - Coherent and factual description and justification of all assumptions on the basis of which the baseline was calculated;
  - The description and justification of all assumptions on the basis of which the emission levels after project completion were calculated;
  - Disclosure of underlying data and references that were used in compiling the baseline study.



- The accuracy of the greenhouse gas emission calculations, ensuring that these have the precision needed for their intended use, including the possibility of performing a sensitivity analysis.

## 2.3 Limitations

The criteria for Joint Implementation Projects described in Article 6 of the Kyoto Protocol and the Guidelines for the implementation of Article 6 of the Kyoto Protocol in the Marrakech Accords are subject to different interpretations especially regarding whether the project is additional or not. Different interpretations can lead to different conclusions and it is not guaranteed that our interpretation will be equal to the interpretation that will be used by the Joint Implementation Supervisory Committee once this committee will be formed.

Quantitative criteria for additionality have not been defined like for instance a minimum change of the Internal Rate of Return or a minimum change of the Net Present Value caused by the transaction of ERU's. Also no maximum Internal Rate of Return without ERU's has been defined as limit. As a result of this we limited our activities regarding the additionality of the project to assessing whether at least one of the three additionality tests from the Senter instructions on this subject were performed. Moreover we assessed whether the GHG emissions will be reduced below those that would have occurred in the absence of the proposed project<sup>2</sup>.

## 2.4 Determination methodology

The determination consisted of a desk review of the PDD with its Annexes. The team in Overgas and Gastec Bulgaria responsible for preparing the PDD has been interviewed.

## 2.5 Determination team

The following team has carried out the determination:

Name	Organization and role in the project
Eric Koudijs	KPMG Certification The Netherlands, Senior consultant, Project Leader
Tzanko Tzanov	Energy expert from the University of Sofia and freelancer working for KPMG Certification The Netherlands during this project. He was technical assistant in the project.

*Table 1: Determination team*

<sup>2</sup> Article 1 of Appendix B of the Guidelines for Implementation of Article 6 of the Kyoto Protocol: Criteria for Baseline Setting and Monitoring



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### 3 Determination

The activities carried out during determination and the period during which these have taken place are described in the following sections. The findings for each component of the PDD are compared with the requirements.

The source for the requirements is FCCC/CP/2001/13/Add.2, Draft Decision -/CMP.1, Appendix B, 21 January 2002, unless stated otherwise.

#### 3.1 Activities

KPMG Certification received the draft PDD's on 31 March 2004. The draft documents were reviewed and discussed during the visit of the determination team to the office of Overgas in Sofia. After this review Overgas made a number of changes in the documentation and on 16 April 2004 an updated version of the PDD was put on the CarbonCredits.nl website.

<b>Date</b>	<b>Interviewee</b>	<b>Position</b>
5 and 6 April 2004	Discussions with the authors of the PDD in the office of Overgas/Gastec in Sofia Bulgaria	
	Alexander Levashki	Executive Director Gastec Bulgaria.
	Martin Hagen	Senior Consultant Gastec Nederland.
	Stela Blagova	Head of Ecology and Sustainable Development Department Gastec Bulgaria.
	Maia Mladenova	Director Development Department Gastec Bulgaria.
	Nevana Pingarova	Chief Expert Development Department Gastec Bulgaria.
	Georgi Bazadjiev	Chief Expert Development Department Gastec Bulgaria.
	Radostina Valkova	Expert Ecology and Sustainability Development Department Gastec Bulgaria.

*Table 2: Overview of site visits and interviews*

KPMG submitted the PDD to Senter and the documentation was published between 16 April 2004 and 15 May 2004 on the website carboncredits.nl. On this website a KPMG e-mail address was published where stakeholder could make comments or ask questions.

#### 3.2 Baseline study

The *baseline* for an Article 6 project (Joint Implementation) is the scenario that reasonably represents the anthropogenic emissions by sources of greenhouse gases that would occur in the absence of the project activities within the project boundary.

The project specific baseline has to be established by the project participants in accordance with UNFCCC requirements. The baseline has to describe in a transparent and conservative manner the choices of (i) approaches, (ii) assumptions, (iii) methodologies; (iv) parameters, (v) data sources, (vi) key factors and (vii) additionality, and (viii) take into account uncertainty.

The baseline requirements have been set out against our findings in the table 3. The source for the requirements is FCCC/CP/2001/13/Add.2, Draft Decision -/CMP.1, Appendix B, 21 January 2002.

<b>Requirement</b>	<b>Findings</b>
The baseline shall be established on a project specific basis and/or using a multi project emission factor.	The baseline has been based on the specific situations in Sofia. Internal research documents of the marketing department of Overgas have been used for setting the baseline.
The baseline shall be established in a transparent manner with regards to the choice of approaches, assumptions, methodologies, parameters, data sources and key factors.	The report structure of the Operational Guidelines has been used. The spreadsheet for calculating the baseline and project emissions is an integral part of the baseline study. The assumptions as well as an explanation of the spreadsheet have been listed in appendices to increase transparency. Approaches, methodologies, parameters, data sources and key factors have been described in a transparent manner.
The baseline shall be established taking into account relevant national and/or sectoral policies and circumstances such as sector reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector.	The key factors influencing the baseline and the project have been described in chapter 4. Overgas en Gastec performed market research in Sofia before taking the decision to invest. The information from these studies has been used for the PDD. The expectations of the management of the company regarding the trends in the energy sector in Bulgaria and the economic developments have been used in establishing the baseline.
The baseline shall be established in such a way that ERU's cannot be earned for decreases in activity levels outside the project activity or due to force majeure.	Decreases of activity levels outside the project activity do not affect the baseline emissions and the project emissions. The baseline has been established in such a way that there will be a direct link between the natural gas use and the emissions reductions of the project.
The baseline shall be established taking into account uncertainties and using conservative assumptions.	Although forecasts are by nature always uncertain the baseline seems conservative, because of the conservative assumptions used. The applied annual growth percentages (1 - 2%) is lower than the other scenarios that are used in the company.
Explanation how the baseline was established in a transparent and conservative manner.	The spreadsheet calculating the baseline emissions has been attached to the baseline report. The efficiency factors in the current situation compared to the project scenario have been transparently described in the PDD and the spreadsheet.

<b>Requirement</b>	<b>Findings</b>
	<p>Conservatism is demonstrated in the efficiency factors in the baseline scenario. The direct link between natural gas sales in the project and the realised emission reductions makes the monitoring easier and transparent and supports the conservative approach.</p> <p>Only 500,000 ERU's are offered to Senter while the estimated emission reduction are 728,590 tonnes CO<sub>2</sub>. If the speed of the introduction of natural gas will be a slightly slower than expected the forecasted emission reductions will still be achieved.</p>
<p>Statement of how anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered JI project activity<sup>3</sup>.</p>	<p>In the absence of the project, no natural gas would be introduced in Sofia and consequently no GHG emissions would be reduced in that situation.</p> <p>In the justification of the project the project developers describe the investment barriers for investments in this sector in Bulgaria. On top of that they indicate that funding through Joint Implementation will stimulate end-users to switch to natural gas because Overgas intends to use the ERU's to reduce the price of natural gas. In a confidential appendix of the PDD the calculation of the Internal Rates of Return with and without ERU's has been made in a situation that the ERU's will be used as source of finance for the project.</p>

*Table 3: Baseline emissions*

<sup>3</sup> Registration can only take place upon determination of the JI project activity.

### 3.3 Sensitivity analysis

According to the Operational Guidelines the project developer must assess systematically and through sensitivity analysis the extent to which the key factors affect the future baseline.

In chapter 6 of the Baseline Study Overgas explains the growth scenarios and expectations of the Bulgarian economy and energy consumption.

### 3.4 Monitoring plan

The monitoring plan describes the data collection and archiving systems that are required to estimate or measure the anthropogenic emissions by sources of greenhouse gases within the project boundary during the crediting period.

The requirements for the monitoring plan have been set out against our findings in table 4.

<b>Requirement</b>	<b>Findings</b>
The monitoring plan shall include a plan for the collection and archiving of all relevant data necessary for estimating or measuring anthropogenic emissions by sources and/or anthropogenic removals by sinks of greenhouse gases occurring within the project boundaries.	The monitoring plan has been described in chapter 9 of the PDD. This monitoring will be limited to monitoring of natural gas sales in the project period applying emission reduction factors per m <sup>3</sup> of natural gas sold. This approach will make monitoring easy and transparent.
The monitoring plan shall include a plan for the collection and archiving of all relevant data necessary for determining the baseline of anthropogenic emissions by sources and/or anthropogenic removals by sinks of greenhouse gases within the project boundary during the crediting period.	The monitoring plan defines responsibilities and refers to systems for natural gas measuring and registration that Overgas already uses in other gas distribution systems.
The monitoring plan shall include a plan for the identification of all potential sources of, and the collection and archiving of data on increased anthropogenic emissions by sources and/or reduced anthropogenic removals by sinks of greenhouse gases outside the project boundary that are significant and reasonably attributable to the project during the crediting period. The project boundary shall encompass all anthropogenic emissions by sources and/or removals by sinks of greenhouse gases under the control of the project participants that are significant and reasonably attributable to the Article 6 project.	The company intends to use the emission factors calculated in the PDD for the monitoring. During the determination no omission of Greenhouse Gas emissions was identified. The subject of possible natural gas leakages from the new system was discussed during determination. The company expects that leaks of natural gas will be minimal because of the fact that modern technology will be applied.

<b>Requirement</b>	<b>Findings</b>
The monitoring plan shall include a plan for collection and archiving information about environmental impacts, in accordance with procedures as required by the host Party, where applicable.	External experts performed Environmental Impact Assessments confirming the positive aspects of natural gas use. Management of environmental impacts will be subject of the host Party legal requirements.
The monitoring plan shall include a plan for quality assurance and control procedures for the monitoring process.	The quality control procedures of the company will also be applied for this project. A description of these procedures has been attached to the PDD.
The monitoring plan shall include a plan for procedures for the periodic calculation of the reductions of anthropogenic emissions by sources and/or enhancements of anthropogenic removals by sinks by the proposed Article 6 project, and for leakage effects, if any. Leakage is defined as the net change of anthropogenic emissions by sources and/or removals by sinks of greenhouse gases which occurs outside the project boundary, and that is measurable and attributable to the Article 6 project.	During the monitoring period the same parameters will be applied using the same spreadsheet as used in the baseline report. Removals and sinks outside the project boundaries as well as leakage have been considered in the baseline report and are considered to be insignificant.
The monitoring plan shall include a plan for documentation of all steps involved in the calculations referred to in subparagraphs above.	The monitoring plan refers to the baseline report indicating that the same formulas and the same formats will be used as those used in the baseline report.

*Table 4: Monitoring plan*

The annual CO<sub>2</sub> emission reductions have been projected by comparing expected baseline situation with the project situation. The fuel consumption, the electricity consumption and the raw material use will be monitored and used in the monitoring reports for calculation of the realised emission reductions during the project period.

### 3.5 Environmental impacts

The Bulgarian legislation requires Environmental Impact Assessments for the projects that can have a potential negative influence on the environment.

Requirements	Findings
<p>Documentation on the analysis of environmental impacts, including transboundary impacts.</p>	<p>Independent experts performed the Environmental Impact Statements for the project according to Bulgarian legislation.</p> <p>Based on this EIS the Regional Inspectorate of Environment and Water (RIEW) in Sofia decided positively to proceed with the next stage of designing and implementation of the project for the sites ECUVD and Bankya.</p> <p>The RIEW Sofia decided that because of the project's durable positive environmental aspects no Environmental Impact Assessment (EIA) has to be prepared. The same procedure applies for other parts of Sofia and the process of obtaining permits for these parts has been started.</p>
<p>Conclusions and references of an Environmental Impact Assessment (EIA). An EIA has to be carried out if project participants or the host Party consider the impacts to be significant. The EIA has to be undertaken in accordance with the procedures as required by the host Party.</p>	<p>In conclusion of the independent experts is that the project has lasting positive environmental aspects. The project will not have negative aspects.</p> <p>The Environmental Authorities decided no EIA has to be prepared because of the project positive environmental aspects.</p>

*Table 5: Environmental impacts*

### 3.6 Stakeholder consultation

The opinion of stakeholders should be sought from both Bulgarian stakeholders and from international stakeholders.

The initiatives of the company regarding local stakeholder consultation have been described in chapter 11 of the PDD.

The Bulgarian stakeholder consultation was organised through the application procedures for environmental permits of the projects and through direct contacts with stakeholders. In chapter 11 of the PDD a summary of the stakeholder initiatives and the stakeholder comments have been included. In summary the comments from local stakeholders were merely positive.



The PDD was published on the Senter website carboncredits.nl between 16 April 2004 and 15 May 2004 July 2004 for obtaining stakeholder comments.

The Managing Director of Honeywell EOOD, Mr. Vladimir Angelov sent a letter to the validators highlighting the project's positive economic, social and environmental aspects. He stated: *"The Project for Reduction of Greenhouse Gases by Gasification of Sofia Municipality will help on the economy of all concerned natural gas users. Obtaining funds under ERUPT 4 will stimulate the Project, which will bring not only economic and social benefits, but will produce a significant environmental effect on the whole Valley of Sofia"*.

Ivet Dimitrova, expert in the field of environmental protection also sent a positive reaction. She stated: *It is impressive that Overgas undertook such serious efforts to facilitate its customers as marketing programs and programs for drawing up loans on preferential terms showing a good knowledge of the market, and necessity of future consumers to use natural gas. Such kind of policy of one of the biggest Bulgarian companies working in the field of natural gas will contribute to a tangible economical and social effect for every separate individual, living on the territory Sofia Municipality.*

Vladimir Dvoretzky of the Climate Foundation in Sofia sent a balanced comment. He underlines that Sofia gasification is a positive phenomenon from all aspects (cleaner, more comfortable, cheaper and it caused less CO<sub>2</sub> emissions). However he also states that in his view the project is "business as usual" and that he finds it difficult to believe the project is additional. He states: *"The real aim, it seems, is to make money "out of the air", on the basis of something that has already been done for business purposes."* He foresees legal problems because he sees no proof that the 139 firms and public entities have relinquished their right to receive a share of the Dutch money. He is doubtful whether the households will opt for natural gas. Moreover he foresees legal problems in relation to possible future Emissions Trading. Finally he attached a link to an article on the web about the mayor of Sofia who stands a probe of abuse of office in a deal with municipal property. His potential removal may forfeit Sofia Municipality's support for the project. According to another attached article on the web Overgas Inc. AD was involved in a prosecutor's probe for murky deals with Ukrainian partners.

**Additionality:** See paragraph 3.2 and the limitations in 2.3. This is indeed a subjective element in determination whether emission reductions are additional or not. In the PDD an additionality test has been described in chapter 5. Overgas described the barriers that have to be taken in order to make an investment like the investment in the gasification project in Sofia. By doing this the project meets the requirements of Senter Internationaal laid down in the "Additionality Test".

**Ownership of the ERU's:** Overgas asked 139 firms and public entities to submit a declaration stating that the emission reductions of the company will be added to the ERU's of the Overgas project while this will lead to lower maximum admissible prices for natural gas. By developing this project as a JI project Overgas allows smaller users to benefit from Joint Implementation that could not benefit otherwise because they are too small to participate in current JI programmes (>50,000 ERU's per year). The same applies for EU Emission Trading Scheme. If this will be implemented (after Bulgaria's EU accession), only owners of installations above 20 MW will be subject of emission trading.

Problems in relation to Emissions Trading: According to the Linking Directive existing Joint Implementation Projects should be respected.

Articles on internet: Our scope is limited to assessing whether the PDD has been properly prepared according to the Marrakech Accords and whether the emission reductions are likely to occur. The possible impact of the change of the major of Sofia as well as due diligence on other activities of Overgas Inc. are outside the scope of this project.

No other comments were received during this period.

### **3.7 Host Country Approval**

The Minister of the Ministry of Environment and Water of Bulgaria signed a Letter of Approval for the respective Joint Implementation project on 4 May 2004. A copy of this letter has been attached in appendix C.

### **3.8 Corrective action requests**

The corrective actions requested by KPMG Certification are included in Annex B.



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## A Key data

<b>Project name</b>	<b>” Reduction of greenhouse gases by gasification of Sofia municipality”</b>
Project number (Senter)	ERU 04/01
Project description	The project aims in the reduction of CO <sub>2</sub> emissions by switching from carbon rich solid and liquid fuels to natural gas by industries, public and administrative buildings and households. The expected CO <sub>2</sub> emissions reduction will be the result of investments in a main gas branch and gas distribution networks.
Project proponents	Overgas Inc. AD Mrs. Stela Kr. Blagova 5, Philip Kutev str. 1407 Sofia Bulgaria Tel. + 359 2 96 03 360 Fax: + 359 2 962 17 24 E-mail: <a href="mailto:stela_blagova@overgas.bg">stela_blagova@overgas.bg</a>
Validator	KPMG Certification BV Amstelveen The Netherlands Tel. + 31 6 5155 3429 Fax. + 31 20 656 4510 E-mail: <a href="mailto:Koudijs.Eric@kpmg.nl">Koudijs.Eric@kpmg.nl</a>
CO <sub>2</sub> reduction claimed by project	ERU's: 500,000 tonnes CO <sub>2</sub> in the period 2008 – 2012 (5 years)

*Table 6: Key data project*



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## B Corrective action requests

On the basis of the examination of the draft PDD version of 31 March 2004, the following questions have been asked.

<b>Page nr.</b>	<b>Issue</b>
Page 16	<p>During the determination visit ownership of the emission reductions was discussed. If an end user switches to natural gas. Who owns the emission reductions? The end user or the company that invested in the natural gas transport and distribution system?</p> <p>Overgas was well aware of this issue and discussed it with the main stakeholders in the project towns in an early stage. This resulted in declarations from the main payers in industry stating that the emission reductions of the company will be added to the ERU's of the Overgas project while this will lead to lower maximum admissible prices for natural gas. Comparable agreements were signed with the mayors of the three towns for natural gas deliveries to the public and administrative buildings. English translations of these agreements were available.</p> <p>In all gas delivery contracts with end users a clause will be included that the emission reductions will be transferred to the total emission reductions of the Gasification Project.</p> <p>Status: This has been clearly described in the justification of the project. The validator reviewed copies of example agreements.</p>
Page 36, 37, 38	<p>In the first draft PDD had a limited chapter on additionality only briefly describing barriers without financial information.</p> <p>Status: The final version contain a more elaborated chapter (chapter 5) including financial arguments. In a confidential appendix of the PDD the calculation of the Internal Rates of Return with and without ERU's has been made in a situation that the ERU's will be used as source of finance for the project.</p>
Page 44, 45	<p>Include the references for the efficiencies in table 11 (table 10 in the final version). Write a paragraph about every of the 5 main factors.</p> <p>Status: For the main applications references have been included in the final version of the report. A more elaborated chapter on efficiency data has been included in the final version of the PDD.</p>
Page 29	<p>Include a paragraph about the indirect on-site and off-site emissions.</p> <p>Status: This has been done in the final version.</p>

<b>Page nr.</b>	<b>Issue</b>
Page 47	To describe why the gas introduction plan is realistic.  Status: On page 47 arguments have been included why natural gas introduction is realistic.
Spreadsheet	Calculate the CO <sub>2</sub> emissions of the actual natural gas used and change if necessary the spreadsheet.  Status: In the calculations the IPCC value of natural gas has been used (34 MJ/Nm <sup>3</sup> and 56,1 tonnes CO <sub>2</sub> /TJ) The actual Russian gas quality has a lower emission factor 54 tonnes CO <sub>2</sub> /TJ and therefore using the IPCC value can be considered conservative for the purpose of calculating the forecasted emission reductions. In the monitoring plan checking the gas quality has been included and emissions reductions will be calculated based on actual emissions of the gas used.
Page 55	Include in the monitoring plan an annual check of the gas composition.  Status: Analysing the gas quality has been included in the monitoring plan.
Page 52	Include an explanation that the fuel switch factors for household sector is changing in time  Status: This has been done after table 16.
Page 40	Include the references for the expected growth in the electricity sector.  Status: This has been done on page 39 and 40 before table 5.
Page 20	Include an overview of non technical interventions (e.g. about marketing efforts)  Status: A brief description of how the company wants to penetrate the market has been included on page 20.



## **C Letter of Approval of the Host Country**





**REPUBLIC OF BULGARIA**  
**MINISTRY OF ENVIRONMENT AND WATER**

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**Letter of Approval**

Undersigned, as a legal and authorised representative of the Republic of Bulgaria,

Acknowledging that the Republic of Bulgaria has ratified the United Nations Framework Convention on Climate Change in 1995,

Taking into consideration that the Republic of Bulgaria has ratified the Kyoto Protocol in 2002,

Recalling that the Republic of Bulgaria and the Kingdom of the Netherlands have signed a Memorandum of Understanding on Reducing Emissions of Greenhouse Gases under Article 6 of the Kyoto Protocol

Referring to:

Proposal number: И-ИД-1755/07.12.2003, named:


**REDUCTION OF GREENHOUSE GASES BY GASIFICATION OF  
SOFIA MUNICIPALITY**

hereafter to be referred to as "JI project",  
located in the town of Sofia on switch from traditional fuels heavy fuel oil,  
gasoil and coal to natural gas

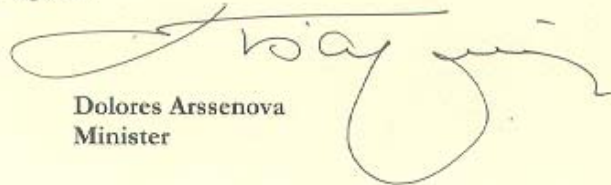
by "Overgas Inc.", hereafter to be referred to as "Supplier",

declares that:

1. Bulgaria has ratified the Kyoto Protocol.
  2. Bulgaria will comply with the requirements to participate in Article 6 KP projects as stated in the Marrakech Declaration no later than 1 September 2006.
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3. Bulgaria recognises the JI project to be a Joint Implementation project in accordance with article 6 of the Kyoto Protocol and its underlying decisions.
  4. Bulgaria authorises the Supplier and any future owner of the JI project to generate Claims on ERUs, by operation of the JI project, in accordance with article 6 of the Kyoto Protocol.
  5. Bulgaria accepts the transfer of 500 000 of verified ERUs, generated through the JI project, to the Government of The Netherlands during the period 2008 – 2012 of the JI project, through the transfer of ERUs by Bulgaria. The transfer of ERUs is irrespective of any legal or other transfer of the JI project to third parties.
  6. In case the Kyoto protocol will not enter into force, Bulgaria and the Netherlands consider the transfer to the Netherlands as a transfer of greenhouse gas emission reduction on a bilateral basis.
  7. In case Bulgaria and the Netherlands fully comply with the participation requirements of the Marrakech accords, the transfer of ERUs will be based on article 23 of these accords ("JI track one").
  8. At the latest in 2011 Bulgaria and the Netherlands will start discussions on eventual transfer of ERUs generated by the JI project after 2012.

Signed:



**Dolores Arssenova**  
Minister

Date: 04.05.2004  
Sofia, Bulgaria

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