

# Feasibility or Case Study for gas supply expansion for Bourgas region, Bulgaria

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<b>Partner name</b>	Bourgaz Regional Agency for Energy Management( BoRAEM)
<b>Work Package</b>	WP 4: Supply and distribution infrastructure for gas fuels
<b>Country</b>	Bulgaria
<b>Region</b>	Bourgaz region
<b>Are there existing filling stations and natural gas and biogas driven cars already in the region?</b>	Yes
<b>Status (F:Final, D:Draft)</b>	F – 8 <sup>th</sup> June 2009

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This case study will look at the successful installation of at least one new gas filling station and one new biogas plant (where appropriate) in your area, and analyse the reasons why this has been successfully installed. Please copy this whole form for each Feasibility Study you undertake

## A. Gas filling station

### A1. Case Study or Feasibility Study

A1.1. How many feasibility studies or case studies have you undertaken for new gas filling stations from 1 Sep 2007 to 20 Aug 2009

Number of case studies:	0
Number of feasibility studies:	1

A1.2 This is Case Study number: 1 Reporting date: September 2009

A1.3 This is Feasibility Study number: 0 Reporting date:

A1.4 Title of this Case Study/Feasibility Study: Roadmap for biogas supply expansion in Bulgaria

A1.5 How was the Case study/Feasibility study selected? According to what criteria?

The aim is to survey the potential for biogas supply expansion in Bulgaria, to observe the costraints for implementing biogas projects and to define measures to overcome the costraints.

A1.6 Would this Case Study/Feasibility Study have taken place without the input from Madegascar

Yes or No Yes

Please give details: (Was it planned before, was it started before, was it initiated by Madegascar, etc)

The Case study has been initiated by Madegascar project
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A1.7 Did you carry out the Study for a particular company or as a marketing tool?

The case study is carried out only as a marketing tool

### A2. The Study

A2.2 List partners in your study

<b>For whom did you carry out the Study</b>	
Company name:	Bourgas Municipality
Public/private:	Public
Business/role:	Supporting local businesses
Address:	Alexandrovska str.
Contact person:	Stliana Mihaylova
Tel:	+35956
Fax :	+35956

Website: [www.obstina-bourgas.org](http://www.obstina-bourgas.org)

#### **Gas supplier**

Company name: "Overgas-iztok" AD  
 Public/private: Private  
 Address: Bourgas, kv. Bratia Miladionovi, Vardar 1 str. 6 floor,  
 Contact person: Zlatin Dimov  
 Tel: 00359 56/876841  
 Fax : 00359 56 / 87 68 68  
 E-mail: [overgas\\_iztok@overgas.bg](mailto:overgas_iztok@overgas.bg)  
 Website: <http://www.overgas-iztok.com/>

#### **Filling station construction company**

Company name: Avtometan  
 Public/private: Private  
 Address: 1, Cap.Lyuben Kondakov str.  
 Contact person: Videnova  
 Tel: 02/ 973 28 38  
 Fax: 02/ 973 26 38  
 E-mail: [info@avtometan.com](mailto:info@avtometan.com)  
 Website: [www.avtometan.com](http://www.avtometan.com)

#### **Owner of new filling station**

Company name: Lukoil  
 Public/private: Private  
 Address: Stefan Stambolov str. GPS Lat: 42.5309 Lon:27.4495  
 Contact person: Doncho Pamukov  
 Tel: 00359 56/880504  
 Fax: 00359 56/880504  
 E-mail: [office@lukoil.bg](mailto:office@lukoil.bg)  
 Website: [www.lukoil.bg](http://www.lukoil.bg)

#### **Principal users of new filling station**

Company name: Burgasbus Ltd  
 Public/private: Public  
 Address:  
 Contact person:  
 Tel:  
 Fax:  
 E-mail: [bourgasbus@abv.bg](mailto:bourgasbus@abv.bg);  
 Website: <http://burgasbus.info/>

#### **Other relevant partners (please copy this section as many times as is required)**

Company name: Orion taxi  
 Public/private: Private  
 Address: 1, Nesebar str  
 Contact person:  
 Tel: 00359 56 / 83 23 23

Fax	00359 56 / 83 23 23
E-mail:	<a href="mailto:office@lukoil.bg">office@lukoil.bg</a>
Website:	<a href="http://www.orientaxi.com">www.orientaxi.com</a>

## A2.3 Describe new/proposed filling station:

**NEW GAS FILLING STATION**

Name of filling station and address	1, Nesebar str.
Type of location, eg. urban, motorway, industrial estate,	urban
Type of filling station eg stand- alone, within petrol/diesel filling station	Within petrol/diesel station
Number of fast filling points	2
Number of slow filling points	-
Number and make of compressors	SW160F6- EM 95
Storage pressure (bar)	220 bar
Storage capacity (water litres)	water litres
Ownership of station	Private
Method of financing station	Bank loan
Main user of station	Lukoil company
Number of vehicle fills per week	1000
Total weekly supply of gas to vehicles	13120Kg
Types of vehicles already using the filling station eg HGV, bus, van, taxi, car	Taxi, car, van
What proportion of the gas is biomethane	0 %
Name of gas supplier	Overgas Iztok
Price of gas to vehicle owner	€ 0,65per kg
Price of gas to station owner	€ 0,37per kg
Opening hours	24
Method of payment, eg. credit card, special card, number plate recognition and account	Credit card, cash
Profitable or not, with figures if possible	profitable

## A2.4 What was MADEGASCAR's major contribution to the Study

SWOT analyses
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## A2.5 Were there any incentives to help establish the new filling station?

Yes, the new filling station was established in the touristic place, where no one gas filling station exists.
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## A2.6 Barriers to establishing new gas filling station:

Tuff procedures, very time consuming burocracy,
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## A2.7 How did MADEGASCAR help to overcome these barriers

The experts dealing with MADEGASCAR initiated direct communication with the department issuing building permission from Nesebar municipality

## A2.8 How did others help to overcome these barriers

## A2.9 Was a new gas filling station built as a result of your Study

Yes, partly

## A2.10 Total capital cost of new filling station

30 000 evro

## A2.11 How long did it take to execute the Case Study/Feasibility Study

48 hours

## A2.12 What is the current status (e.g. finished, work in progress)

finished

## A2.13 When did the Case Study/Feasibility Study start

Beginning of  
September 2008

## A2.14 When did/will the Case Study/Feasibility Study end

Mid of  
September 2008

## A2.15 How long did you spend working on this Case Study/Feasibility Study

72 hours

## A2.16 How did this Case Study/Feasibility Study cost

72 hours

## A2.17 General conclusions and recommendations

## A2.18 Comments

## B. New biogas plants

### B1. Case Study or Feasibility Study

B1.1. How many feasibility studies or case studies have you undertaken for new gas filling stations from 1 Sep 2007 to 20 Aug 2009

Number: 1

Number of case studies: Number of feasibility studies: 1
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- B1.2 This is Case Study number                      Reporting date
- B1.3 This is Feasibility Study number 1              Reporting date November 2009
- B1.4 Title of this Case Study/Feasibility Study: Building of collector system for extraction of bio-gas from waste depot
- B1.5 How was the Case study/Feasibility study selected. According to what criteria?  
 There is no working biogas plant in Bourgas aria yet. Up to now city waste is collect and moves to the depot and the waste accumulate over there. So our criteria it was amount of storage waste and future flows.
- B1.6 Would this Case Study/Feasibility Study have taken place without the input from Madegascar  
 Yes or No      **No**  
 Please give details: (Was it planned before, was it started before, was it initiated by Madegascar, etc)
- |  |
|--|
|  |
|--|
- B1.7 Did you carry out the Study for a particular company or as a marketing tool?

## B2. The Study

- B2.2 List partners in your study

### Owner of biogas plant

Company name:	Municipality Bourgas
Address:	26 Alexandrovska str. Bourgas
Contact person:	Stiliana Savova
Tel:	00359 56 907 428
Fax	00359 56 907 428
E-mail:	
Website:	<a href="http://www.obstina-bourgas.org">www.obstina-bourgas.org</a>

### Supplier of waste

Company name:	Titan AC Ltd
Address:	Bulgaria 1000, Sofia Vitosha 21
Contact person:	I.Dakovski
Tel:	+3592 9803750
Fax	+3592 9809886
E-mail:	<a href="mailto:dacovski@titan-bg.com">dacovski@titan-bg.com</a>
Website:	<a href="http://www.titan-bg.com">www.titan-bg.com</a>

### Plant construction company

Company name: Address: Contact person: Tel: Fax: E-mail: Website:
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<b>Purchaser of biogas</b> Company name: "Overgas-iztok" AD Public/private: Private Address: Bourgas, kv. Bratia Miladionovi, Vardar 1 str. 6 floor, Contact person: Zlatin Dimov Tel: 00359 56/876841 Fax : 00359 56 / 87 68 68 E-mail: <a href="mailto:overgas_iztok@overgas.bg">overgas_iztok@overgas.bg</a> Website: <a href="http://www.overgas-iztok.com/">http://www.overgas-iztok.com/</a>
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<b>Other relevant partners (please copy this section as many times as is required)</b> Company name: Address: Contact person: Tel: Fax: E-mail: Website:
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### B2.3 Describe new biogas plant:

#### NEW Biogas PLANTS

Name of biogas plant and address	Bratovo
Type of location, eg. farm, municipal, industrial estate,	municipal
Make of biogas plant e.g.	
Principal feedstocks e.g. municipal waste, cattle slurry	municipal waste
Tonnes per annum of waste treated	72 000 tpa
Cubic metres of biogas produced	100 000 000m <sup>3</sup> per annum
Proportion of biogas upgraded to biomethane	85 %
Method of upgrading the biogas to biomethane	Open column
Whether biomethane is fed into the gas grid	Yes
Name of gas filling station where	

biomethane is used  
 Method by which biomethane reaches a gas filling station e.g. gas grid, pipeline, trailer, etc pipeline  
 Price paid for gas to biogas plant owner € per m<sup>3</sup>

B2.4 What was MADEGASCAR's major contribution to the Study

Participation in the feasibility study carried out

B2.5 Were there any incentives to help establish the new filling station?

Yes

B2.6 Barriers for establishing new gas filling station:

very limited information available, lack of information concerning the procedures, lack of communication between governmental and nongovernmental sector, difficult access to the state support

B2.7 How did MADEGASCAR help to overcome these barriers

provide knowledge and information to the key palyers and to the interested parties

B2.8 How did others help to overcome these barriers

B2.9 Was a new gas filling station built as a result of your Study

No

B2.10 Total capital cost of new filling station

40-50 mill euro

B2.11 How long did it take to execute the Case Study/Feasibility Study

80 hours

B2.12 What is the current status (e.g. finished, work in progress)

Work in progress

B2.13 When did the Case Study/Feasibility Study start

Beginning of  
March 2008

B2.14 When did/will the Case Study/Feasibility Study end

Mid of March  
2008

B2.15 How long did you spend working on this Case Study/Feasibility Study

84 hours

B2.16 How did this Case Study/Feasibility Study cost

84 hours

B2.17 General conclusions and recommendations

B2.18 Comments