

# Feasibility or Case Study for gas supply expansion for South Bohemia, Czech Republic

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<b>Partner name</b>	SEVEn
<b>Work Package</b>	WP 4: Supply and distribution infrastructure for gas fuels
<b>Country</b>	Czech Republic
<b>Region</b>	South Bohemia
<b>Are there existing filling stations and natural gas and biogas driven cars already in the region?</b>	Yes (except for availability of biogas as motor fuel for transportation)
<b>Status (F:Final, D:Draft)</b>	F – September 30, 2009

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**Gas supplier**

Company name:  
Public/private:  
Address:  
Contact person:  
Tel:  
Fax :  
E-mail:  
Website:

**Filling station construction company**

Company name  
Public/private:  
Address:  
Contact person:  
Tel:  
Fax:  
E-mail:  
Website:

**Owner of new filling station**

Company name:  
Public/private:  
Address:  
Contact person:  
Tel:  
Fax:  
E-mail:  
Website:

**Principal users of new filling station**

Company name:  
Public/private:  
Address:  
Contact person:  
Tel:  
Fax:  
E-mail:  
Website:

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

Company name:  
Public/private:  
Address:  
Contact person:  
Tel:  
Fax  
E-mail:  
Website:

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

**NEW GAS FILLING STATION**

Name of filling station and address  
 Type of location, eg. urban,  
 motorway, industrial estate,  
 Type of filling station eg stand-alone,  
 within petrol/diesel filling station  
 Number of fast filling points  
 Number of slow filling points  
 Number and make of compressors  
 Storage pressure (bar) bar  
 Storage capacity (water litres) water litres  
 Ownership of station  
 Method of financing station  
 Main user of station  
 Number of vehicle fills per week Kg or m<sup>3</sup>  
 Total weekly supply of gas to vehicles Kg or m<sup>3</sup>  
 Types of vehicles already using the  
 filling station eg HGV, bus, van,  
 taxi, car  
 What proportion of the gas is biomethane %  
 Name of gas supplier  
 Price of gas to vehicle owner € per kg  
 Price of gas to station owner € per kg  
 Opening hours  
 Method of payment, eg. credit card,  
 special card, number plate  
 recognition and account  
 Profitable or not, with figures if  
 possible

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

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

## A2.6 Barriers to establishing new gas filling station:

## A2.7 How did MADEGASCAR help to overcome these barriers

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



B1.5 How was the Case study/Feasibility study selected. According to what criteria?

The feasibility study was carried out as part of a more comprehensive strategy of which goal was to assess possibilities of securing supplies of "green" gas for CNG filling stations in Prague. The biogas plant in the town of Trebon was preselected as one of prospective suppliers.

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)

The plan to conduct the study was agreed with Prazska plynarenska and the owners of the Trebon biogas plant in the 1st Q of 2009. All the concerned parties concluded that there should be carried out an in-depth study which would propose the size of the plant, technical solution of the upgrading unit and indicative price at which upgraded biogas would be supplied to the grid. The study was carried as one of the most extensive and successful national activities of the MADEGASCAR project.

B1.7 Did you carry out the Study for a particular company or as a marketing tool?

For a particular company - the prospective purchaser of upgraded biogas

## B2. The Study

B2.2 List partners in your study

### Owner of biogas plant

Company name: BIOPLYN Třeboň spol. s r.o.  
 Address: Dukelská 134/I., 37901 Třeboň  
 Contact person: Miroslav Kajan  
 Tel: +420 333721211  
 Fax  
 E-mail: aqua@trebon.cz  
 Website:

### Supplier of waste

Company name: local farmers  
 Address:  
 Contact person:  
 Tel:  
 Fax  
 E-mail:  
 Website:

### Plant construction company

Company name: MT-ENERGIE Česká republika s.r.o.

<b>Address:</b>	nám J. Hrubého 244, 378 21 Kardašova Řečice
<b>Contact person:</b>	ing. Ladislav Dobrovolný
<b>Tel:</b>	+420 384 385 790
<b>Fax:</b>	
<b>E-mail:</b>	info@mt-energie.cz
<b>Website:</b>	http://cz.mt-energie.com/kontakt/va-e-kontakt- osoba.htm

<b>Purchaser of biogas</b>	
<b>Company name:</b>	Prazska plynarenska, a.s.
<b>Address:</b>	Národní 37, 110 00, Praha 1
<b>Contact person:</b>	Jan Zakovec
<b>Tel:</b>	420 267 171 111
<b>Fax:</b>	420 267 171 030
<b>E-mail:</b>	Jan.Zakovec@ppas.cz
<b>Website:</b>	www.ppas.cz

<b>Other relevant partners (please copy this section as many times as is required)</b>	
<b>Company name:</b>	
<b>Address:</b>	
<b>Contact person:</b>	
<b>Tel:</b>	
<b>Fax:</b>	
<b>E-mail:</b>	
<b>Website:</b>	

### B2.3 Describe new biogas plant:

#### NEW Biogas PLANTS

<b>Name of biogas plant and address</b>	Bioplyn Trebon, Trebon (industrial park ca 2 km north of city), extension of the existing one
<b>Type of location, eg. farm, municipal, industrial estate,</b>	farm
<b>Make of biogas plant e.g.</b>	MT-Energie
<b>Principal feedstocks e.g. municipal waste, cattle slurry</b>	maize and grass silage
<b>Tonnes per annum of waste treated</b>	10 000 tpa
<b>Cubic metres of biogas produced</b>	2 milion m <sup>3</sup> per annum
<b>Proportion of biogas upgraded to biomethane</b>	100%
<b>Method of upgrading the biogas to biomethane</b>	In the study there was not selected concrete technology, only assesseed and compared technical-economic parameters of several ones

Whether biomethane is fed into the gas grid	Yes
Name of gas filling station where biomethane is used	To be offered in CNG filling stations in Prague
Method by which biomethane reaches a gas filling station e.g. gas grid, pipeline, trailer, etc	Via natural gas grid
Price paid for gas to biogas plant owner	€ 0.8 per m <sup>3</sup>

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

MADEGASCAR project partner took the role of working out the feasibility study which shall be used for strategic decision whether to invest into the extension of the biogas plant and start producing biogas for upgrading and injection into the grid.

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

In relation to the assessed project, there was not assumed any new CNG filling station, however, Prazska plynarenska has a plan for extension of filling stations in Prague to more than ten in next five years.

#### B2.6 Barriers to establishing new gas filling station:

#### B2.7 How did MADEGASCAR help to overcome these barriers

#### 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

#### B2.10 Total capital cost of new filling station

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

180 hours

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

finished, project realized

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

7/2009

**B2.14 When did/will the Case Study/Feasibility Study end****B2.15 How long did you spend working on this Case Study/Feasibility Study** hours**B2.16 How did this Case Study/Feasibility Study cost** hours**B2.17 General conclusions and recommendations**

The feasibility study proved that the project is viable from the technical point of view, the costs of (upgraded) biogas produced was about 3times higher then natural gas as a commodity.

**B2.18 Comments**

More information about the project can be found in a short summary which is the attachment of the form.