

Feasibility or Case Study for gas supply expansion for Vilnius, Kaunas, Klaipeda LITHUANIA

Del. 4.3.7



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Work Package	WP 4: Supply and distribution infrastructure for gas fuels
Country	Lithuania
Region	Vilnius, Kaunas & Klaipeda
Are there existing filling stations and natural gas and biogas driven cars already in the region?	Yes, there are CNG filling station
Status (F:Final, D:Draft)	F – 8 th 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:	2
Number of feasibility studies:	1

A1.2 This is Case Study number 2 Reporting date 08-06-2009

A1.3 This is Feasibility Study number 1 Reporting date 08-06-2009

A1.4 Title of this Case Study: "Study of CNG usage possibilities in Klaipeda's public transport"

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

1. Regional coverage according to this project;
2. Existence of larger public transport fleet;
3. Interest from public authorities (municipality) and private companies.

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)

It was planned before, but was not started. With the activity from Madegascar partners at LEI, it was possible to carry out the feasibility study in shorter time and greater scope.
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A1.7 Did you carry out the Study for a particular company or as a marketing tool?

Particular company – Klaipeda's public transport company UAB "Klaipedos autobusu parkas" and UAB "Sgdujos"

A2. The Study

A2.2 List partners in your study

For whom did you carry out the Study

Company name: UAB "SG dujos";

Public/private: Private;

Business/role: Owner of CNG filling station;

Address: J. Savickio str. 21-1; LT-01108 Vilnius



Contact person: Darius Juozapavicius
Tel: +370 5 212 0843
Fax : +370 5 231 3783
E-mail: d.juozapavicius@sgdujos.lt
Website: www.sgdujos.lt

Gas supplier

Company name: AB "Lietuvos dujos";
Public/private: Public;
Address: Aguonu str. 24, LT-03212 Vilnius;
Contact person: Saulius Bilys
Tel: +370 5 236 0146;
Fax : +370 5 236 0200;
E-mail: s.bilys@lietuvos dujos.lt
Website: www.dujos.lt

Filling station construction company

Company name UAB "SGdujos"
Public/private: Private
Address: J. Savickio str. 21-1 LT-01108 Vilnius;
Contact person: Darius Juozapavicius;
Tel: +370 5 212 0843;
Fax: +370 5 231 3783;
E-mail: d.juozapavicius@sgdujos.lt
Website: www.sgdujos.lt

Owner of new filling station

Company name: UAB "SGdujos"
Public/private: Private
Address: J. Savickio str. 21-1 LT-01108 Vilnius;
Contact person: Darius Juozapavicius;
Tel: +370 5 212 0843;
Fax: +370 5 231 3783;
E-mail: d.juozapavicius@sgdujos.lt
Website: www.sgdujos.lt

Principal users of new filling station

Company name: UAB "Klaipedos autobusu parkas";
Public/private: Public;
Address: Garazu str. 2, LT-92101 Klaipeda, Lithuania
Contact person: Gintaras Petreikis
Tel: +370 46 411552
Fax: +370 46 411 561
E-mail: techdir@klap.lt
Website: http://www.klap.lt

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

Company name: UAB "Autoideja"
Public/private: private

Address:	Ozo str. 10 A, LT-08200 Vilnius
Contact person:	Laimonas Dapšys
Tel:	+370 5 2357197
Fax:	+370 5 2356089
E-mail:	laimonas@cng.lt
Website:	www.cng.lt

A2.3 Describe new/proposed filling station:

NEW GAS FILLING STATION

Name of filling station and address	Klaipeda's CNG filling station;
Type of location, eg. urban, motorway, industrial estate,	Urban; industrial estate
Type of filling station eg stand-alone, within petrol/diesel filling station	Stand-alone
Number of fast filling points	4
Number of slow filling points	Currently – 0, planned – 30;
Number and make of compressors	
Storage pressure (bar)	n/a bar
Storage capacity (water litres)	n/a water litres
Ownership of station	Private (UAB Sgdujos)
Method of financing station	Private equity
Main user of station	Klaipeda public transport company;
Number of vehicle fills per week	30 buses/week (5-6 buses/day)
Total weekly supply of gas to vehicles	2500 – 4000 m ³ / week
Types of vehicles already using the filling station eg HGV, bus, van, taxi, car	Buses;
What proportion of the gas is biomethane	0 %
Name of gas supplier	AB "Lietuvos dujos"
Price of gas to vehicle owner	€ n/a per kg
Price of gas to station owner	€ 0,8 per kg
Opening hours	24
Method of payment, eg. credit card, special card, number plate recognition and account	Special card
Profitable or not, with figures if possible	Not profitable yet, because the fleet, which uses CNG is still in progress and very limited

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

- | |
|--|
| <ul style="list-style-type: none"> a) provided main information about best-practices concerning CNG use; b) identified other potential private users; c) made efforts to create tax incentives for more extensive usage of CNG. |
|--|

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

No, it was the only initiative in the Klaipeda region.
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A2.6 Barriers to establishing new gas filling station:

1. Legal and technical requirements for construction of the filling station;
2. Lack of knowledge and financial support, and very long payback period;
3. Reluctance from the public authorities and publicly – owned company to support the project activity;
4. Limited number of filling station users (unclear potential number of private users)

A2.7 How did MADEGASCAR help to overcome these barriers

- In order to overcome reluctance support the project, Madagascar partner transferred best practices from other Madagascar's partner countries (through seminars, direct contacts and letters). Conducted filling station promotion activities for relevant stakeholders (municipality's transport specialists and public transport company managers)
- Madagascar found, contacted and raised interest in the filling station project among other relevant potential private CNG users;
- Efforts have been made to lift the excise tax for CNG and this way to increase the number of CNG users.

A2.8 How did others help to overcome these barriers

- Municipality and public transport company provided finance for acquisition of experimental buses, which uses of CNG;
- Municipality supported the initiative by providing land (place) for the filling station;
- NG supply company AB "Lietuvos dujos" provided connection to gas pipeline.

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

NO

A2.10 Total capital cost of new filling station

Confidential info

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

140 hours

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

Work in progress

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

01-02-2009

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

01-06-2009

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

140 hours

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

250 hours

A2.17 General conclusions and recommendations

Was to set the main barriers and price to introduce of CNG for transport, which are as follows:

- a) there are no financial support or favourable condition for credits for CNG building;
- b) there are no economical interest for transport company;
- c) at this time there are very narrow circumstances in economical situation in country.

Consequently must be create more favourable Special Programme for development CNG industry in country.

A2.18 Comments

This action will be better to do for longer time and some years late.

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

B1.2 This is Case Study number Reporting date

B1.3 This is Feasibility Study number 1 Reporting date 08-06-2009

B1.4 Title of this Case Study/Feasibility Study: "Biogas plant development feasibility study in Kaunas region"

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

1. Regional coverage;
2. Ecological problems with organic wastes in region.

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 feasibility study to use biogas for transport was initiated by Madegascar.

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

B2. The Study

B2.2 List partners in your study

<p>Owner of biogas plant Company name: N/a Address: Contact person: Tel: Fax E-mail: Website:</p>
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<p>Supplier of waste Company name: N/a Address: Contact person: Tel: Fax E-mail: Website:</p>
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<p>Plant construction company Company name: N/a Address: Contact person: Tel: Fax E-mail: Website:</p>

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



Company name: N/a 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	Biogas production possibility in pigs farm; Kaunas region
Type of location, eg. farm, municipal, industrial estate,	Private pig farm
Make of biogas plant e.g.	
Principal feedstocks e.g. municipal waste, cattle slurry	Pig manure, municipal wastes
Tonnes per annum of waste treated	About 21500 tpa
Cubic metres of biogas produced	432000 – 1296000 m ³ per annum
Proportion of biogas upgraded to biomethane	0 %
Method of upgrading the biogas to biomethane	n/a
Whether biomethane is fed into the gas grid	No
Name of gas filling station where biomethane is used	n/a
Method by which biomethane reaches a gas filling station e.g. gas grid, pipeline, trailer, etc	n/a
Price paid for gas to biogas plant owner	€ n/a per m ³

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

The study was initiated and carried out by Madegascar

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

No, because there has been no experience with CNG and biogas filling stations in general.

B2.6 Barriers to establishing new gas filling station:

- | |
|---|
| <ol style="list-style-type: none"> 1. Main barrier is no biomethane; 2. No economical incentive to use biomethane instead of other traditional fuels, as LPG etc. |
|---|

B2.7 How did MADEGASCAR help to overcome these barriers

Madagascar initiated preparation of biogas plant feasibility study, where give the information about raw materials, potential users and required investment as well as best practices from other Madagascar's partners.

B2.8 How did others help to overcome these barriers

The private companies give the financial support for CNG filling stations.

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

about 1,5 Mln €

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

160 hours

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

In progress, yet

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

01-04-2009

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

Not end, yet

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

160 hours

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

200 hours

B2.17 General conclusions and recommendations

The main conclusion of the feasibility study is that the possibilities to produce and usage of biomethane for transport in Lithuanian region under current economical situation are very limited. The main reason is that there are no economical incentives to choose biomethane as fuel for transport over other existing fuels, such as LPG etc.

B2.18 Comments

The main very important advantage of biomethane use for transport is ecological, but not more at the nearest one –two years in country.