

Feasibility or Case Study for gas supply expansion for Podkarpacka, Malopolski, Poland

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Region	Malopolskie and Podkarpackie
Are there existing filling stations and natural gas and biogas driven cars already in the region?	xx
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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

A1.3 This is Feasibility Study number Reporting date

A1.4 Title of this Case Study/Feasibility Study:

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

Data of filling station not available, all numbers about filling stations treaded as comercial-confidential. In Poland there is only one cpany that owns a filling stations: a regional divisions of PGNiG

A1.6 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)

Feasibility study was initiated by news from Madegascar project

A1.7 Did you carry out the Study for a particular company or as a marketing tool?

There is no possibility to make case study or feasibility study in our region because of no ability of gaining information about total costs of complete filling station

A2. The Study

A2.2 List partners in your study

For whom did you carry out the Study

Company name: Watkem

Public/private: private

Business/role: LPG filling stations owner

Address:

Contact person:

Tel:

Fax :
E-mail:
Website:

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 m³
 Total weekly supply of gas to
 vehicles Kg or m³
 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

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

There was one person interested of establish new filling station, that owns LPG and gasoline fuel station, unfortunately preliminary cost evaluation gave economic low profitability of station and high costs of exploitation with small amount of potential consumers.

A2.6 Barriers to establishing new gas filling station:

High cost, hard legislation for every part of filling stations: pipes, compressors, storage tanks, etc.
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A2.7 How did MADEGASCAR help to overcome these barriers

Financial barriers not to overcome by project.

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

no

A2.10 Total capital cost of new filling station

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

6 hours

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

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

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

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

4 hours

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

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:

Number of case studies: 4
Number of feasibility studies:

- B1.2 This is Case Study number 1 Reporting date
- B1.3 This is Feasibility Study number Reporting date
- B1.4 Title of this Case Study/Feasibility Study: The biogas installation of the Central Sewage Treatment Plant in Czestochowa
- B1.5 How was the Case study/Feasibility study selected. According to what criteria?
This installation was selected as long term working with long experience at field biogas.
- B1.6 Would this Case Study/Feasibility Study have taken place without the input from Madagascar
Yes or No no
Please give details: (Was it planned before, was it started before, was it initiated by Madagascar, etc)
This case study was initiated by Madagascar
- B1.7 Did you carry out the Study for a particular company or as a marketing tool?
This case study was developed as a marketing tool

B2. The Study

- B2.2 List partners in your study

Owner of biogas plant

Company name: City Czestochowa
Address:
Contact person:
Tel:
Fax
E-mail:
Website:

Supplier of waste

Company name: City waste Management company
Address:
Contact person:
Tel:
Fax
E-mail:
Website:

Plant construction company

Company name: N/A
Address:
Contact person:
Tel:
Fax
E-mail:

Website:

Purchaser of biogas
 Company name: gas used inside the plant
 Address:
 Contact person:
 Tel:
 Fax
 E-mail:
 Website:

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

B2.3 Describe new biogas plant:

NEW Biogas PLANTS

Name of biogas plant and address	Central Sewage Treatment Plant in Częstochowa municipal
Type of location, eg. farm, municipal, industrial estate, Make of biogas plant e.g.	
Principal feedstocks e.g. municipal waste, cattle slurry	Waste water
Tonnes per annum of waste water treated	3125 tpa
Cubic metres of biogas produced	7000 m ³ per annum
Proportion of biogas upgraded to biomethane	0%
Method of upgrading the biogas to biomethane	No upgrading
Whether biomethane is fed into the gas grid	No
Name of gas filling station where biomethane is used	No filling station
Method by which biomethane reaches a gas filling station e.g. gas grid, pipeline, trailer, etc	Biogas is used to CHP unit sited in plant
Price paid for gas to biogas plant	€ N/A per m ³



owner

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

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

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

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

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

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

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

B2.17 General conclusions and recommendations

B2.18 Comments

- B1.2 This is Case Study number 2 Reporting date
- B1.3 This is Feasibility Study number Reporting date
- B1.4 Title of this Case Study/Feasibility Study: Biogas obtained in the Zywiec Sewage Treatment Plant
- B1.5 How was the Case study/Feasibility study selected. According to what criteria?
This installation was selected as plant protecting the Zywiec Landscape Park with long experience at field biogas.
- B1.6 Would this Case Study/Feasibility Study have taken place without the input from Madagascar
Yes or No no
Please give details: (Was it planned before, was it started before, was it initiated by Madagascar, etc)
This case study was initiated by Madagascar
- B1.7 Did you carry out the Study for a particular company or as a marketing tool?
This case study was developed as a marketing tool

B2. The Study

- B2.2 List partners in your study

Owner of biogas plant

Company name: City Zywiec
Address:
Contact person: N/A
Tel:
Fax
E-mail:
Website:

Supplier of waste

Company name: City waste Management company
Address:
Contact person:
Tel:
Fax
E-mail:
Website:

Plant construction company

Company name: N/A
Address:
Contact person:
Tel:
Fax

E-mail: Website:

<p>Purchaser of biogas</p> Company name: gas used inside the plant to CHP unit Address: Contact person: Tel: Fax: E-mail: Website:

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

B2.3 Describe new biogas plant:

NEW Biogas PLANTS

Name of biogas plant and address	Zywiec Sewage Treatment Plant
Type of location, eg. farm, municipal, industrial estate,	Municipal close to Landscape Park
Make of biogas plant e.g.	
Principal feedstocks e.g. municipal waste, cattle slurry	Waste water
Tonnes per annum of waste water treated	N/A tpa
Cubic metres of biogas produced	406 071 m ³ per annum
Proportion of biogas upgraded to biomethane	0%
Method of upgrading the biogas to biomethane	No upgrading
Whether biomethane is fed into the gas grid	No
Name of gas filling station where biomethane is used	No filling station
Method by which biomethane reaches a gas filling station e.g. gas grid, pipeline, trailer, etc	Biogas is used to CHP unit situated in plant
Price paid for gas to biogas plant	€ N/A per m ³



owner

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

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

B2.6 Barriers to establishing new gas filling station:

High costs, no potential clients.

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

No

B2.10 Total capital cost of new filling station

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

18 hours

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

Finished, working

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

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

12 hours

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

hours

B2.17 General conclusions and recommendations

High cost of biogas upgrading unit, makes not possible sell it to the net. Also low level of knowledge about upgrading and work with natural gas grid.

B2.18 Comments

- B1.2 This is Case Study number 3 Reporting date
- B1.3 This is Feasibility Study number Reporting date
- B1.4 Title of this Case Study/Feasibility Study: "Barycz" community landfill in Krakow
- B1.5 How was the Case study/Feasibility study selected. According to what criteria?
This installation was selected as plant using stored waste at landfill.
- 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)
This case study was initiated by Madegascar
- B1.7 Did you carry out the Study for a particular company or as a marketing tool?
This case study was developed as a marketing tool

B2. The Study

- B2.2 List partners in your study

Owner of biogas plant

Company name: City Krakow
Address:
Contact person: N/A
Tel:
Fax
E-mail:
Website:

Supplier of waste

Company name: City waste Management company
Address:
Contact person:
Tel:
Fax
E-mail:
Website:

Plant construction company

Company name: N/A
Address:
Contact person:
Tel:
Fax
E-mail:
Website:

Purchaser of biogas

Company name: gas used inside the plant to CHP unit
 Address:
 Contact person:
 Tel:
 Fax
 E-mail:
 Website:

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

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

B2.3 Describe new biogas plant:**NEW Biogas PLANTS**

Name of biogas plant and address	"Barycz" community landfill in Krakow
Type of location, eg. farm, municipal, industrial estate,	Municipal
Make of biogas plant e.g.	
Principal feedstocks e.g. municipal waste, cattle slurry	Waste landfill
Tonnes per annum of waste water treated	N/A tpa
Cubic metres of biogas produced	300 m ³ /h
Proportion of biogas upgraded to biomethane	0%
Method of upgrading the biogas to biomethane	No upgrading, only desulfurization
Whether biomethane is fed into the gas grid	No
Name of gas filling station where biomethane is used	No filling station
Method by which biomethane reaches a gas filling station e.g. gas grid, pipeline, trailer, etc	Biogas is used in boiler for heat production situated in plant area
Price paid for gas to biogas plant owner	€ n/a per m ³

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

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

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

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

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

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

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

B2.17 General conclusions and recommendations

B2.18 Comments

B1.2 This is Case Study number 4

Reporting date



- B1.3 This is Feasibility Study number Reporting date
- B1.4 Title of this Case Study/Feasibility Study: Tychy - Urbanowice Sewage Treatment Plant
- B1.5 How was the Case study/Feasibility study selected. According to what criteria?
This installation was selected as plant using stored waste at landfill.
- B1.6 Would this Case Study/Feasibility Study have taken place without the input from Madagascar
Yes or No no
Please give details: (Was it planned before, was it started before, was it initiated by Madagascar, etc)
This case study was initiated by Madagascar
- B1.7 Did you carry out the Study for a particular company or as a marketing tool?
This case study was developed as a marketing tool

B2. The Study

- B2.2 List partners in your study

Owner of biogas plant

Company name: City Tychy

Address:

Contact person: N/A

Tel:

Fax

E-mail:

Website:

Supplier of waste

Company name: City waste Management company

Address:

Contact person:

Tel:

Fax

E-mail:

Website:

Plant construction company

Company name: N/A

Address:

Contact person:

Tel:

Fax

E-mail:

Website:

Purchaser of biogas

Company name: gas used inside the plant to CHP unit
 Address:
 Contact person:
 Tel:
 Fax
 E-mail:
 Website:

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

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

B2.3 Describe new biogas plant:**NEW Biogas PLANTS**

Name of biogas plant and address	Tychy - Urbanowice Sewage Treatment Plant
Type of location, eg. farm, municipal, industrial estate,	Municipal
Make of biogas plant e.g.	
Principal feedstocks e.g. municipal waste, cattle slurry	Waste landfill and waste water
Tonnes per annum of waste water treated	N/A tpa
Cubic metres of biogas produced	229 m ³ /h
Proportion of biogas upgraded to biomethane	0%
Method of upgrading the biogas to biomethane	No upgrading, only desulfurization
Whether biomethane is fed into the gas grid	No
Name of gas filling station where biomethane is used	No filling station
Method by which biomethane reaches a gas filling station e.g. gas grid, pipeline, trailer, etc	Biogas is used in boiler for heat production situated in plant area
Price paid for gas to biogas plant owner	€ n/a per m ³

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

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

B2.6 Barriers to establishing new gas filling station:

High costs, no potential clients.

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

No

B2.10 Total capital cost of new filling station

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

18 hours

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

Finished, working

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

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

12 hours

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

hours

B2.17 General conclusions and recommendations

High cost of biogas upgrading unit, makes not possible sell it to the net. Also low level of knowledge about upgrading and work with natural gas grid.

B2.18 Comments