Market strategy for Black Sea Region, Bulgaria

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Are there existing filling stations and natural gas and biogas driven cars already in the region?	Yes

Summary

The target groups are across the supply chain of production, supply and distribution and end user consumer.

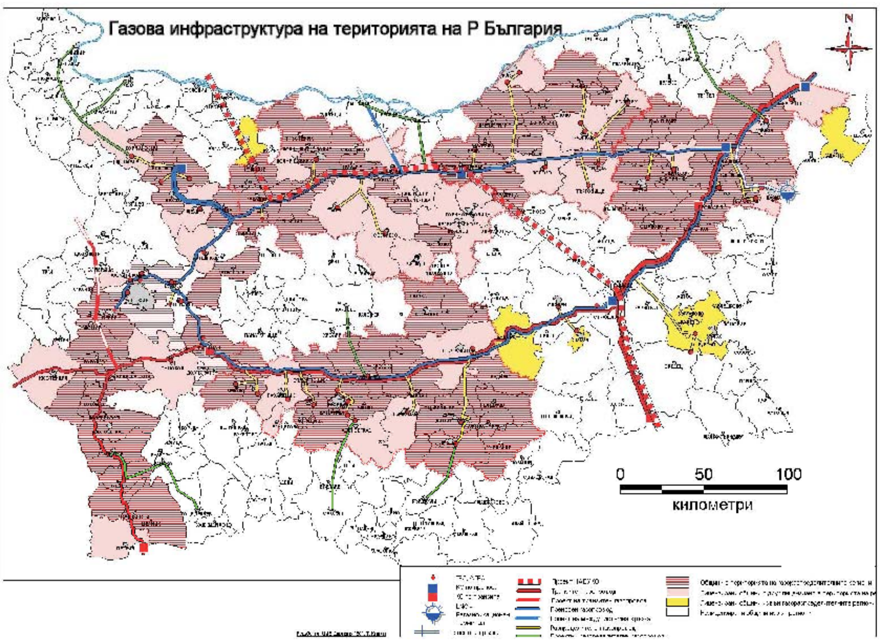
A concerted effort will be made working with new vehicle importers and sellers and associated trade associations to increase the number of new CNG vehicles sold in Bulgaria. This will link albeit in a limited way with second hand dealers who import private CNG cars from elsewhere in Europe.

The project partner seeks to work with fleet vehicles owners and managers in the region in converting vehicles to use CNG. The project partner will in conjunction with the cooperation partners across the supply chain lobby for financial incentives for conversion of vehicles to use CNG.

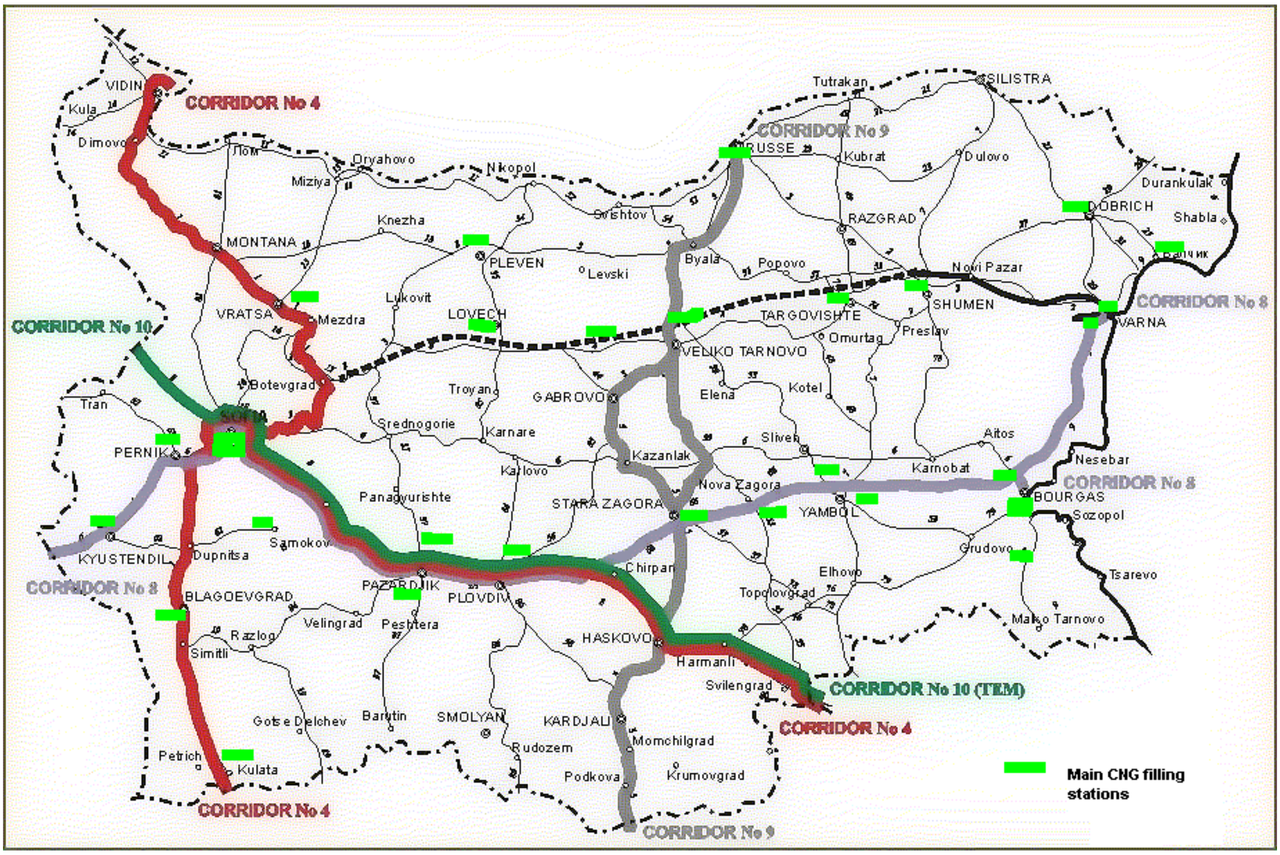
The existing key actors in the supply and installation of CNG fuel stations will be encouraged to expand their network and increase the number of fuelling stations across the region working in partnership with the gas supply and distribution network which is depicted below.

SECTOR: ENERGY Appendix III.1.

GAS INFRASTRUCTURE ON THE BULGARIAN TERRITORY



The existing CNG fuelling network is depicted below identifying the main locations of the 59 existing fuelling stations across the whole of Bulgaria. There are 12 within the project region. As reported there are another 15 fuelling stations on the drawing board or under construction but the locations have not been plotted.



As natural gas is wholly imported by the state owned company Bulgargaz and the distribution licence is with one major company Overgas with other smaller distribution companies which are mainly owned by Overgas there is a major task in promoting the production of Bio Methane and close cooperation will be needed to achieve this task.

The project partner will also work potential Bio Methane production units such as waste water and land fill companies to increase production.

Contents

Introduction/Background

The Bulgarian Government state institutions have only declared support but no positive action for a “Refuel with Methane” campaign and the development of methane / CNG fuelling stations has been pioneered a business man ’Lyubo Ganev’ who has been solely responsible for its growth to date.

The development of methane production to date has been very limited and restricted to investigating coal bed methane production and very little has been done since a research project in 2001 other than a methane monitoring project carried out by the Biomass Technology Group of the Netherlands measuring emissions from a biomass stockpile in Svishtov which is outside the project region.

Within the project region, 1 viability and feasibility study was carried out between January 2000 and March 2001 on a land fill site in the Bourgas region but no action was taken.

At present the concept and market development of methane production has not happened.

Although there are over 40,200 vehicles on the Bulgarian roads using CNG they are restricted to the main urban areas as the fuelling stations are clustered around them.

The distribution of gas is limited to the main network which is being developed by the sole distributions company Overgas and its subsidiaries.

Analysis of the different aspects of the gas market

Analysis of the surroundings

There are no real or concrete restrictions or incentives in relation to the production of Biogas and it is left solely to market forces. Politically the nation is neutral.

In terms of opportunities for production from waste there are opportunities however their development is and will be restricted by funding available.

Market inquiry

There are an increasing number of CNG vehicles on the Bulgarian roads and there is a reported 225% growth in the market in the past year with a 229% growth in the number of fuelling stations. This is spurred on by the availability of new CNG vehicles coming to the market and the increase of second hand CNG vehicles being privately imported mainly from Italy. The growth of fuelling stations is down to the actions of 2 companies which are outside the project region but are active in the region. The same is applicable for vehicle conversion although there is development work being carried out by Varna technical university and a new vehicle conversion plant will be opened in the future.

As stated there are no biogas production plants in the region and this is an area of development for the project. Distribution of CNG fuelling stations is mainly restricted by the gas network which is currently being developed.

Analysis of the concept “methane gas as vehicle fuel”

There is no experience of Biogas production or treatment. Natural gas is mainly imported from Russia by Bulgargaz the state owned company and distributed through the expanding gas network which existing CNG fuelling stations link to.

Approximately 70-75% of taxis in the region and an unknown number of private cars use CNG as a vehicle fuel in the region but the image associated with CNG and Bio methane use is neutral and environmental issues do not rank.

The unique factor is that it is a nascent market with demand by end user consumer for cheaper fuel driving demand albeit in the small private car market sector. There are no financial incentives other than the private car user / taxi driver owner converting and using CNG as a vehicle fuel mainly due to ever increasing petroleum based fuel costs. However the technology to convert and use CNG is available but cost of conversion is mostly outside the budgets of the every day Bulgarian.

Analysis of competitive products

Vehicle users have the normal range of fuels available to them including; diesel, benzene full and unleaded and LPG which are the main fuels used. The normal market prices apply with LPG at the bottom of the cost ranking, approximately 50% of the cost of petrol and diesel. CNG where available is the cheapest fuel. Availability is the key to increasing the use of CNG and Bio Methane.

Analysis of costumers/

High mileage users such as taxis are the main users of CNG due to the equation of profitability and running costs. Choice is made based on running costs against fares obtained. Increased availability of CNG fuelling stations in urban areas where the populace of taxis exist is a determining factor. The purchase of a second hand car imported mainly from Italy that runs on CNG holds no barrier except access to fuel. Therefore the sale of such vehicles is restricted. Use of LPG negates safety issues as fuel tanks are known to be safe and technology improves all the time so no barrier exist in this area.

The re is a reluctance to convert as incomes are low. An example being that the average value of a second hand car in Bulgaria is about 5,000 BGN and the cost of conversion is about, 1,500 BGN. This is a substantial investment. The second reason for reluctance is safety. Vehicle owner question the safety of the vehicle when using them on rough and pot holed roads which are endemic in Bulgaria when carrying a heavy fuel tank.

Customer knowledge of Biogas production is virtually nil and “gas comes from Russia”. Gas is a fuel that is cheaper than petrol or diesel and decisions are based on availability and costs. It is a basis of the 14.3% inflation we suffer and limited incomes so for a large proportion of the population; use what you can get hold of.

Bio diesel is known off but again availability is the limiting factor although there has been an increase of availability in recent months.

Short and long term threats and possibilities

The limiting factor is the costs of vehicle conversion to run on CNG. The availability of new CNG vehicles is improving and there are more and more new ways of financing the purchase of such vehicles. The increased availability of CNG and Bio Methane will drive increased usage. The market is ripe for new fuels especially if they are cheaper than conventional fuels. There is no bias for or against Bio methane or CNG.

There is a big argument for increasing the production of Biogas but financing the production plant is the key limiting factor. The gas network is growing but as with the production of electricity by the means of wind turbines there is no master plan for Bio Methane production.

Bottlenecks on the gas market

The main bottle neck in the supply chain is envisaged as being as follows:

The production of Bio Methane and linking it to the gas network. The gas network is being developed and gasification and distribution is increasing so the project will be looking at increasing production at the local level.

There are no known political obstacles to the development and it is thought that it will be encouraged but no assistance other than rhetoric is foreseen. The trick will be to break this impasse and obtain positive concrete support from political actors.

There are others who wish to get in on the action and participate in the supply chain but the distribution network needs to be improved; this is being done on a national level as well as the licensing of companies to be part of the supply chain.

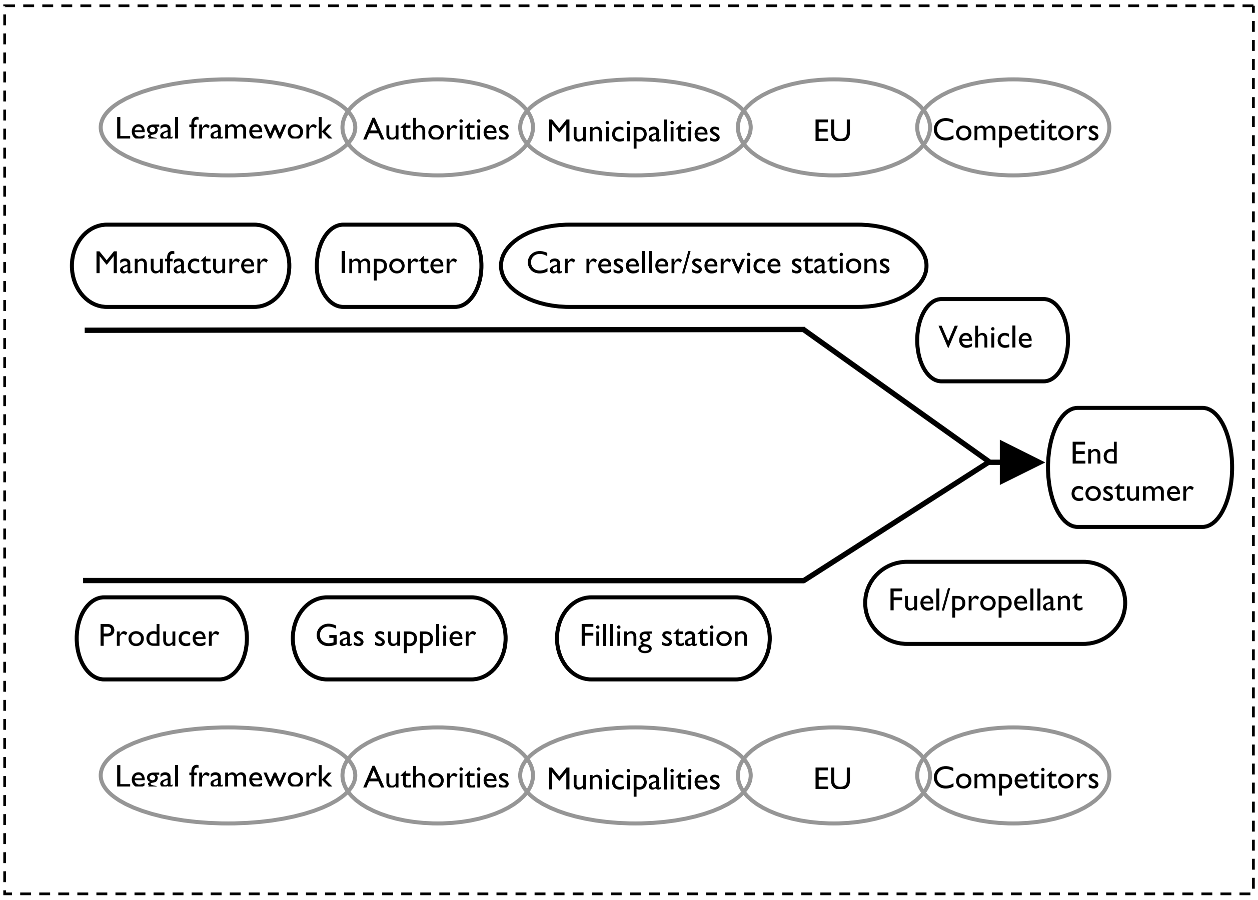


Figure 1. An overview of the gas market and its actors. From producers of gas and vehicles to the end costumer.

Market Strategy

The project partner will focus its activities across the supply chain in the following manner:

Production:
Potential Bio Methane producers at waste disposal repositories, waste water, agricultural and land fill.

Supply / Distribution:
Gas network actors and petroleum companies. CNG fuel station equipment suppliers and private investors.

End user / consumer:
Fleet mangers for vehicle conversion, car importers (new and second hand)

Local and national government:
Seek engagement and political support as well as financial incentives and support for increased CNG and Bio Methane use in vehicles.

The main activities focusing on production will revolve around discussion groups and round tables persuading the different potential production actors to develop the market. This will be aligned to and include technical and educational presentations building knowledge and capacity.

In relation to supply and distribution the activities will focus on working with the different actors in increasing the market awareness and availability of CNG as a vehicle fuel and promote the involvement and active engagement of suppliers in the market encouraging further development of CNG sales outlets. This will be targeted at both the national chains and private fuel resellers. Working with existing CNG sellers through an awareness campaign promoting CNG as a fuel at points of sale.

Activities such as lobbying Governmental agencies and vehicle resellers and fleet vehicle users to sell and or convert existing vehicles to CNG will be utilised

Message

The message to be delivered is that Bio Methane is a natural, renewable, affordable and environmentally friendly vehicle fuel. Using and recycling waste to provide cheaper energy to vehicles is not harmful but helps the environment and is renewable. Biodiesel increases costs elsewhere in the economy and reduces the availability of food for the table by feeding vehicles therefore it is a better choice.

Choice of target group and distribution strategy

Vehicle expansion

The information dissemination will be focused on the region but as many of the key actors are located outside the region we have to involve them. Therefore information dissemination will be wider than the region.

The message will be targeted at major fleet owners and managers such as public transport and logistic companies as well as car resellers.

The message will also be targeted at the end users / consumer to increase interest.

The message will be as broad a possible in general terms linked to more detailed information available from the web, cooperation partners and other actors.

The methods to be used are information leaflets / brochures, media channels, press releases and interviews with key actors in the project and supply chain. Meetings with key actors encouraging engagement at local and association levels aligned to the partnership working and branding of the project.

Biogas supply

The project partnership networking events and meetings will include potential Bio Methane producers and production methods will be promoted. Potential suppliers will include ‘waste’ producers and waste managers but also Municipal authorities. The message delivery system will have to be more focused and personal contact as this is the proffered delivery method for the market. The message will be a simple one; Produce Bio Methane! Feed the market!

Gas grid expansion
The gas system expansion is already fixed and underway. Changes at this late hour will not be possible however spurs to fuelling stations and this infrastructure needs to be further developed therefore a message of increased distribution will be targeted at the two actors (both outside the region) Bulgargaz and Overgas to increase the distribution network. This will be achieved through meetings, project partnership and persuasion.

Filling station expansion
The actors in this segment are again outside the region but will be involved. They do not need any encouragement and are active in trying to build the network. They already have their own message for the promotion of CNG and Bio Methane as a fuel for vehicles but will join forces with the project in a more concerted effort.

The information dissemination can be summarised as being

- Personal contacts and intervention
- Information leaflets and brochures and stickers
- Network meetings with key actors who will be encouraged to promote their own messages
- Press releases, media interviews with key actors, branding of the project
- Lobbying at governmental levels
- Web content and links.