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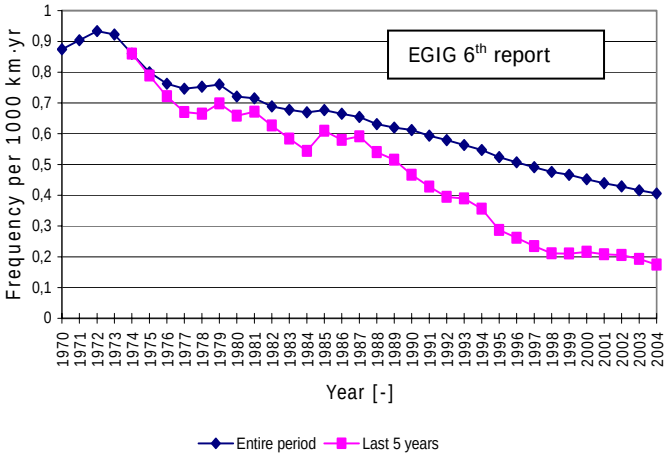
The Natural Gas Industry in Europe: key factors for a successful sustainable energy future

The concept of sustainability covers various business issues which have been considered separately in the past, such as social aspects (Health & Safety, labor standards, and community dialogue), environment (waste minimization, emissions reduction, biodiversity) and economy (revenues, earnings, cash flow, shareholder value).

According to Marcogaz, the Natural Gas Industry is in a good position regarding sustainability compared with other fossil fuels, as it has a good track record for each aspect mentioned above. The following 6 key issues present a good overview about the endeavors and performances of the Natural Gas Industry in reaching a sustainable energy future in Europe.

1. Safety of natural gas grids, domestic & industrial gas infrastructures

Gas Infrastructure is by far the safest way to transport energy to the end users. The Gas Industry has reached an excellent safety level as recently published relevant statistics proved (see www.egig.nl). The data collected show that the level of incidents, already low in the past, has been constantly decreasing in the previous years. Nowadays the biggest part of incidents is caused by third parties working in the proximity of the pipelines: even if these causes are mainly out of the control of the TSOs, the Gas Industry is paying a high attention to prevent and avoid these incidents.



These very good results in terms of safety are due to the constant attention and investments made by the Gas Industry to develop its own standards, to improve its technical regulation and to reinforce its Research & Development policy towards innovative techniques, which prevent and mitigate incidents, and to the constant investment for training programs.

Marcogaz also strongly supports safety enhancement in domestic facilities as this issue is of growing importance on the European market, by giving dedicated recommendations (see document “recommendations of safety of Domestic Gas Installations” downloadable from the Marcogaz website[1]). In addition, Marcogaz is also supporting the safety of industrial gas installations by preparing guidelines which aim to help industrial customers to implement the numerous safety legislation and standards in force in Europe. A poster, with a visual overview of the standards and legislation affecting the industrial gas installations, has been issued and it’s available on the Marcogaz website.

[1] www.marcogaz.org

2. Energy efficiency

The Gas Industry has always been very active in many aspects on the strive of increasing the energy efficiency in all the parts of the gas chain but especially in the utilisation sector:

- The development of new and highly efficient technologies as well as their integration in the market has always been a strong priority on the Gas Industry agenda. The development of the condensing boiler technology was achieved with the strong support and involvement of the Gas Industry. The industry focuses nowadays on various innovative technologies which should be soon available including the micro combined heat and power generation (mCHP), gas heat pumps, the integration of solar-gas hybrid systems, and the utilisation of biogas. All these technologies will improve energy efficiency and will have a very positive impact on CO2 reduction.

- The Gas Industry is also involved in standardization to facilitate and promote the dissemination and the integration of the most efficient technologies on the market.

This strategy includes information to the customers and the installers, achievement of adapted tools that can demonstrate the energetic and financial advantages of these technologies. For instance, the Danish Gas Industry has recently launched the first central heating boiler labeling system which has accelerated the installation of condensing boilers in this Country: shortly after the implementation of this information tool the condensing technology has become predominant very quickly after the introduction of the label by the manufacturers.

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At the same time, Marcogaz strongly supports the European Commission's initiative to issue a comprehensive and efficient energy labeling system for gas appliances. Such a label shall inform customers on the reality of the energy performances of possible systems and therefore will help them to do their final choice, likely among the less consuming and more efficient models.

3. Biogas

Biogas presents a strong environmental advantage as it is mostly produced from different sort of waste (agricultural, garbage….). The interest of the Gas Industry in biogas is rising. It is considered as an interesting new source of energy supply for the EU. A growing number of energy companies are developing many projects to improve the biogas production and injection into gas grids. One of the options to transport biogas is through natural gas grids which represents an attractive and safe solution to transport it up to the consumer. Marcogaz has issued the first recommendation for the safe injection of biogas into the gas grids which has been proposed to CEN to further become a standard document. The recommendation can be downloaded from the Marcogaz website[1]

[1] www.marcogaz.org

4. Contributions against Climate Change

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The global climate change challenge raised intensive debates on the issue of greenhouse gases. The main greenhouse gas is carbon dioxide (CO2) but other emissions also contribute to the greenhouse effect. Natural gas is unanimously recognized as the most environmentally friendly and sustainable fossil fuel with the lowest CO2 emissions. Its use, in high efficiency combined cycle power plants, in heating and hot water production for the housing sector and in the transport sector with NGV, can heavily reduce the level of greenhouse gases as well as other pollutants such as particulates and sulphur dioxide (SO2).

Methane emissions from the natural gas sector in 2005 in Europe were, in spite of the emphasis put by media and some stakeholders, only about 7% of total methane emissions in Europe. Losses and leakages of natural gas from the European transmission and distribution systems have long been recognized by Marcogaz as an issue. The Natural Gas Industry has taken its responsibility seriously and reduced methane emissions for years by taking very successful measures in this respect including extensive programmes of gas mains replacement. These measures represent a very good environmental investment, as well as bringing other benefits in terms of efficiency and increased safety due to the reduced leakages. The Gas Industry continues to work to reduce methane emissions across the gas chain, and thereby improve natural gas's already good carbon footprint. The gas industry is also helping to improve the overall sustainability of the European society, using its expertise in the transportation sector for the development of projects for the carbon transportation by pipelines.

5. Occupational Health & Safety

In addition to the strong attention given to the safety of its facilities, the Natural Gas Industry is also highly concerned by the issue of Health & Safety for its own employees. Every year, important investments are made by companies to improve the working conditions of their employees and to supply them with the necessary safety tools.

The Natural Gas Industry monitors the incidents occurred in the work place, identifying the causes which provoked them, the hazards and risks, putting in place measures to reduce the risk and the incident occurrence. This is not only the case for its own employees but also for the many contractors who work for the Gas Industry.

This reflects a very high level of safety in the work place clearly shown by the statistics gathered each year.

6. Natural Gas vehicles

An important contribution in the mobility sector can be given by using natural gas as a vehicle fuel. The opportunity to immediately implement this well known technique in Europe gives an excellent chance to reduce emissions significantly. CO2 reduction is the first advantage and can be even increased by using biomethane. Reduction of particulates (- 98 % against diesel), NOx (- 80 %) and ozone-building emissions are the most important environmental benefits of this alternative. During the “European Forum Gas 2008” organized by Marcogaz in Bratislava, a dedicated session on NGVs will highlight the environmental advantages to use natural gas for transport.

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