

# Significance and advantages of LNG

The growing significance of LNG in the past few years is connected with the overall increase in demand for natural gas.

The use of liquefied natural gas is spurred by the development of transport possibilities of LNG, and above all the expansion of the methane transporter fleet (204 units in 2006 – data according to: The Maritime Business Strategies data, LLC; by 2010 another 145 ships will be built), as well as the large price competitiveness of LNG in relation to gas transported via pipelines.

The location of gas deposits throughout the world in places which are difficult to connect using pipelines with countries, who are the chief recipients of that gas, also has a vast significance on the increasing interest in LNG. The use of liquefied natural gas is also an excellent method for covering the peak demands for gas.

Basic advantages of LNG:

- Flexibility of supplies – LNG is a proven method both in terms of being an effective way of diversifying gas supplies for certain countries as well as covering the peak demand for gas.
- Output – during the liquefaction of natural gas into LNG, its capacity is reduced by approx. 600 times. This means that after re-gasification from 100 m<sup>3</sup> of LNG we receive 60,000 m<sup>3</sup> of natural gas.
- Economy – the costs of transport and storage of LNG are smaller than that of natural gas. This affects, among others, the possibility of selecting suppliers from different parts of the world (cost of purchase and transport optimisation).
- Ecology – natural gas is an ecological fuel. It emits much less pollutants into the atmosphere during combustion than coal, petroleum or other mined fuels. Liquefied natural gas is additionally purified – it is comprised of 95% methane with a small fraction of other components (approx. 5%). LNG is therefore a very clean fuel without toxic or corrosive properties.

Security – should a leak possibly occur, LNG simply evaporates and is rarefied in the atmosphere. Thus, it is a much less harmful and dangerous fuel than petroleum or LPG. It is impossible to pollute the environment (sea, soil) in the case of an LNG leak. Modern technologies used in constructing the LNG containers (the 'full-containment', type), as well as special procedures and security systems ensure an exceptionally high level of safety of the re-gasification terminals.