

## CURRENT AND FUTURE APPLICATIONS OF NATURAL GAS

**February 22<sup>nd</sup>, 2018.-** AleaSoft answers a questionnaire about the current and future applications of natural gas partially published in the “Who is who in the energy industry” supplement of the Spanish newspaper Expansión.

### **What are the forecasts of increased production and demand of natural gas for the coming years?**

Multiple scenarios have been analysed until 2030 and 2060. In all scenarios, gas consumption grows. The global demand for energy will grow and by 2060 the electricity demand will double. The greatest growth in gas demand is expected in Asia.

Gas consumption is enhanced as it is complementary to other fuels and to electricity itself in many uses, and because it is replacing oil and coal since it is less polluting for heat or electricity generation, as well as being more efficient.

### **Studies indicate that natural gas will gain importance. What are the main gas applications?**

Natural gas has always had an important domestic use for heating and cooking; it has also had an industrial use, previously as direct fuel for boilers and later by cogeneration to produce electricity and heat with more efficiency. In all means of land transport and especially in maritime transport the gas natural will increasingly be used as it reduces the emission of waste harmful to the environment such as nitrogen oxides (NOx) and particles that enter the atmosphere. In developing countries, the gas natural will replace coal in the electricity production through high-efficiency combined cycles with low CO2 emissions as an important step to avoid global warming, and in more developed countries it will continue to be used to support the electrical system together with the electricity produced from renewable energy sources such as wind power, solar and biomass. Natural gas is also used in the petrochemical industry as a raw material in the basic processes associated with methane.

### **Due to its increase in consumption, are there new applications planned in the future that are not currently taking place?**

In the current uses mentioned before, natural gas will replace coal and oil with increasing efficiency from new technological advances. Any technological advance based on a primary energy will be fundamentally based on natural gas.

An important application of future development is trigeneration to obtain cold as well as heat and electricity. Another application is in hydrogen cells to generate electricity in different types of land transport. In domestic use, natural gas will begin to be used combined with electricity to generate heat in kitchens, washing machines, dryers, dishwashers, that is, a hybrid of electrical appliances with gas appliances.

### **What are the world reserves?**

The natural gas proven reserves, without counting shale gas, are in the order of 200 trillion cubic meters. Russia owns almost a quarter of these reserves.

Counting the shale gas, the world reserves could reach to satisfy the consumption between 80 and 100 years. This scope should be extended by introducing renewable energies more and more intensively.

#### **About AleaSoft**

**Aleasoftware** offers solutions for forecasting in the energy sector. For more than 19 years AleaSoft has provided its clients with a set of products and services in the field of demand forecasts and electricity market prices. In addition, AleaSoft makes forecasts of renewable energies such as wind power, thermosolar, photovoltaic and hydroelectric production.

**Aleasoftware** offers short-, mid- and long-term forecasting to all types of agents in the energy sector: Utilities, Transmission System Operators (TSO), Distribution System Operators, Traders, Retailers, large energy Consumers and all types of generators in the electricity and gas industries. With the rise of PPAs (Power Purchase Agreement), AleaSoft provides long-term forecasting to developers and managers of electrical infrastructures, as well as investors, banks and renewable energy buyers in all European markets.

Nowadays, 85% of the electricity traded in the Spanish wholesale market is using our price forecasting as a reference.