

# our contribution to environmental sustainability

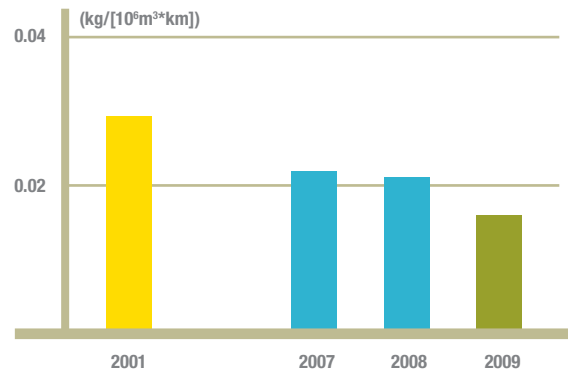
The quality of the environment influences the lives of millions of people who live in urban areas. The concentration of activities and population makes the environmental effects associated with the use of energy sources especially critical. The most important effect is represented by atmospheric pollution.

Our activities have made available an energy source, natural gas, which has a low environmental impact and which meets growing energy needs in domestic applications, in industry and in the production of electricity. Owing to its capacity for transmission without affecting the environment and owing to its chemical and physical characteristics, it is used in technologies with increasingly improved energy efficiency and lower emissions of pollutants.

Our contribution to the development of the Italian gas system infrastructure from 2001 to the present translates to an increase in the transmission network of over 1,900 km, an increase in the installed power at the gas compressor stations of over 260 MW and an increase in the transmission capacity from the entry points connected with other countries of around 116 million Sm<sup>3</sup> per day.

The activities have been carried out applying the best available technologies so as to interfere as little as possible with the environment both during the plant construction phases and afterwards during

**NO<sub>x</sub> EMISSIONS FOR TRANSMISSION/NATURAL GAS SENT INTO NETWORK\* AVERAGE DISTANCE TRAVELLED**



their operation.

The positive environmental results achieved are the recognition of our commitment.

2010 is the international year of biodiversity, and in October 2010, in Japan, an international conference will be held on this increasingly important issue (Conference of the Parties (COP10) of the United Nations Convention on Biodiversity). Before this convention the European Union must set out a policy that protects, recovers and takes account of biodiversity and the functions of the ecological system. In line with this trend, and always attentive to Nature and its protection, in 2009 Snam Rete Gas published operating instructions for safeguarding and the sustainable use of biodiversity in the design, construction and decommissioning of gas pipelines.

| COMPOSITION AND CHARACTERISTICS OF NATURAL GAS USED IN ITALY IN 2009 (a) |         |         |                   |          |        |                |
|--|---------|---------|-------------------|----------|--------|----------------|
|  | Italian | Russian | Northern European | Algerian | Libyan | LNG Regasified |
| (% volume)   |         |         |                   |          |        |                |
| Methane  | 98.915  | 96.893  | 89.842            | 88.839   | 85.108 | 89.213         |
| Ethane   | 0.432   | 1.419   | 5.060             | 6.585    | 6.767  | 7.753          |
| Other hydrocarbons   | 0.145   | 0.624   | 1.443             | 1.585    | 2.948  | 1.759          |
| Carbon dioxide   | 0.087   | 0.212   | 1.425             | 1.027    | 1.496  |                |
| Nitrogen   | 0.421   | 0.841   | 2.194             | 1.864    | 3.522  | 1.141          |
| Oxygen   |         |         |                   |          | 0.050  | 0.134          |
| Helium   |         | 0.011   | 0.036             | 0.100    | 0.109  |                |
| Higher Heating Value (kj//Sm <sup>3</sup> )                              | 37,810  | 38,201  | 38,833            | 39,571   | 39,775 | 40,619         |
| Lower Heating Value (kj//Sm <sup>3</sup> )                               | 34,049  | 34,420  | 35,043            | 35,724   | 35,940 | 36,680         |

(a) data source Snam Rete Gas

## an operation at the service of the environment

When the T MPC submarine gas pipeline owned by third party which connects Italy to Tunisia was interrupted (the interruption was due to the accidental breakage of the pipeline) Snam Rete Gas made available its equipment, expertise and procedures

to recover the gas present in the pipeline and consequently contain the atmospheric emissions.

**From this operation, the release into the atmosphere of over 30,000 tonnes of CO<sub>2eq</sub> was avoided.**