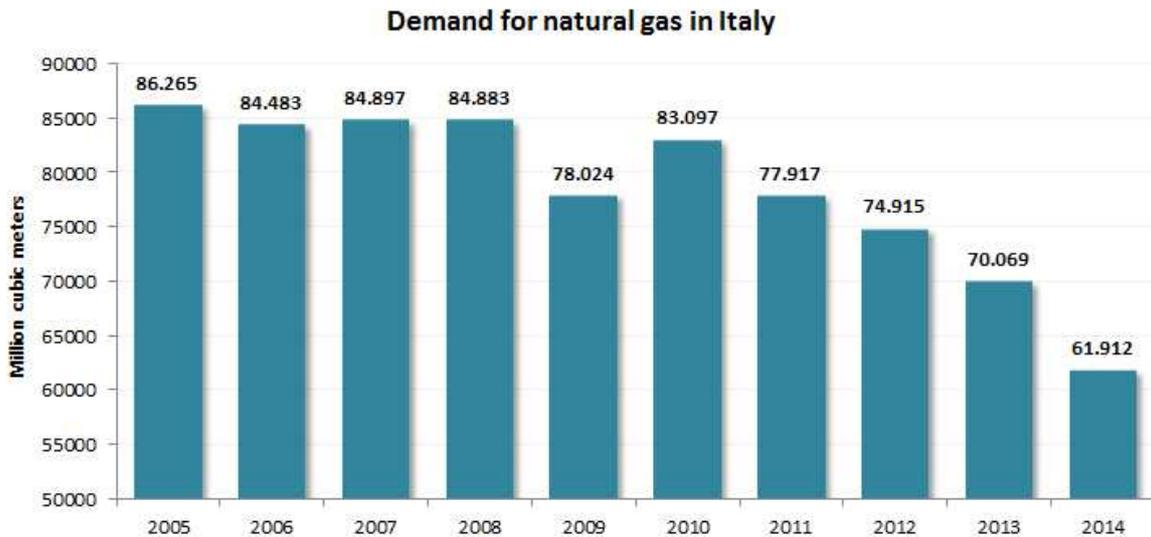


The demand for natural gas in Italy

To understand the demand for natural gas in Italy in recent years, we look at the trend in consumption in the period 2005-2014.



Source: IEA – International Energy Agency

The demand for natural gas in 2014 amounted to 61.9 billion cubic metres, bcm, a decrease of approximately 8.1 bcm (-11.6%) compared to 2013, following a contraction in consumption of the thermoelectric (-14%) and residential and tertiary sectors (-17%). This reduction is approx. 65% due to lower civil heating consumption and the remaining 35% to the lower thermoelectric gas consumption. 2014, in fact, was characterised by a particularly mild winter compared to normal temperatures and a cool and rainy summer. These climatic factors helped contain the consumption of gas for heating and thermoelectric generation. In 2014, the consumption of natural gas returned to 1998 levels.

Considering the normalised data (by normalised value is meant the consumption of gas for heating in the civil sector that would occur in the event of temperatures within the seasonal average), the decrease is reduced to approx. 3.1 billion cubic meters (-4.5%). This decrease is mainly due to the reduction of gas consumption in the thermoelectric sector whose main causes are the lower demand for electricity (-3%), the lower economic competitiveness of the generation of gas compared to coal and the increased availability of hydroelectric and renewable energy (+7.4%) compared to 2013. These considerations for 2014 are in fact part of a broader scenario. In fact, the decline in natural gas consumption began after 2005, when there was a record value of 86,265 bcm of natural gas consumed.

The profound economic crisis which set in in 2008 further helped limit the demand for natural gas, with the exception of 2010, a year characterised by temperatures well below average and by far the coldest of the last decade.

The availability of natural gas has seen a reduction in domestic natural gas production of 7.6% (reaching the level of 7.1 billion cubic metres) and imports of approx. 55.36 billion cubic metres, accounting for roughly the 89% of the total offer. Breaking down by source data concerning primary energy consumption in 2014, the importance of fossil fuels as the primary energy source is evident. Oil and natural gas, in fact, account for 65% of Italian energy consumption. As can be seen from the graph, renewables and solid fuels are used almost entirely in the production of electricity (light green area), while for natural gas and oil the yellow area, corresponding to final energy consumption, is predominant. It is important to note that in 2014, for the second year, the contribution of renewables in electricity production is higher than

that of natural gas; in fact, they account for 50% and 26% of electricity production, respectively. Imports of electricity in Italy account for 6% of primary energy consumption, while solid fuels and renewable energy sources account for 8% and 21%, respectively, of primary energy consumption.

Energy consumption by source in 2014 (ktoe)	Primary consumption	Final consumption	Production of electricity	Consumption and losses of energy sector
Oil	57,271	51,376	32,344	3,551
Natural gas	50,713	34,386	14,650	1,677
Renewable	34,671	6,871	27,789	11
Solid fuels	13,693	2,927	10,647	119

Source: National Energy Report - Ministry of Economic Development

Italy without methane, some figures

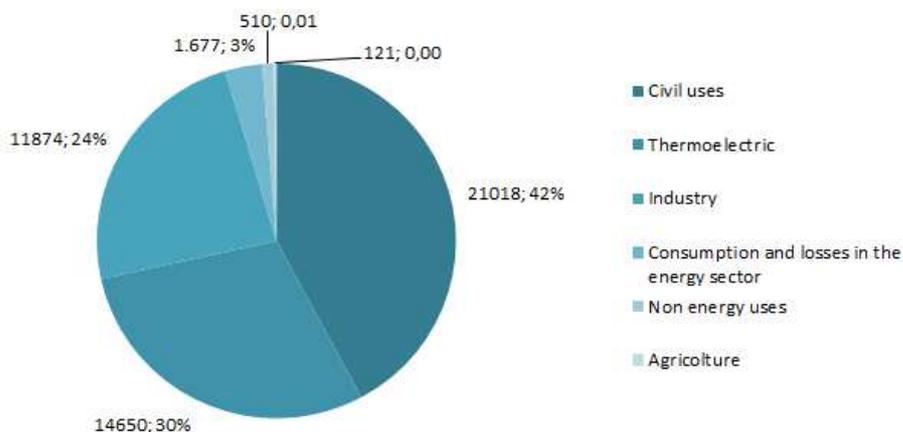
At the end of 2014, there were 37,080,753 cars on the roads in Italy, of which 833,668 fuelled by methane (qualenergia.it). If there was no methane, a city like Turin would remain on foot.

Every year in Italy 995 cubic metres per capita are consumed. The methane consumed in a year by a family of three would fill a balloon approx. 3000 cubic metres in volume.

Italy is the 4th largest importer of gas worldwide. The domestic production of natural gas, in fact, accounts for only 11% domestic demand.

The gas-fuelled thermoelectric sector accounts for 26.4% of electricity production in Italy. Without methane, 5,808,000 households would remain without electricity (there are 22,000,000 Italian households. Source: istat.it). In Italy, in fact, methane is primarily used to fuel civil consumption (domestic heating, gas cookers, thermoelectric).

Natural gas in Italy: energy consumption by sector in 2014 Data in MTOE



Source: National Energy Report - Ministry of Economic Development

By Andrea Bellati and Benedetta Palazzo

Sources:

[Istat](#)

[Qualenergia](#)

[IEA - International Energy Balance](#)

[Snam - 2015-2024 ten-year plan for the development of natural gas transmission networks](#)