



The Adriatic LNG terminal being towed from Algeciras (Spain) to Italy. Photo: EPA/Business Wire

It has taken more than 10 years, but Italy's first liquefied natural gas terminal since the 1970s signals big changes for Europe's No. 3 gas market. Many more plants are planned and may help reduce European reliance on Russian and Algerian imports.

# *New LNG-terminal shakes up Italian market*

| by James Osborne

After more than a decade of planning, permitting and construction, this autumn Italy is opening its second liquefied natural gas (LNG) terminal. The €2 billion Rovigo facility is situated offshore, in the Adriatic Sea, 15 kilometres off Italy's north-eastern coast, not far from the Venice lagoon.

Despite being the world's No. 8 consumer of natural gas – and Europe's third-biggest – and an ideal geographical location in the Mediterranean between Europe's big consuming market and production sites in Africa and the Middle East, Italy has

struggled to achieve its goal of adding LNG import capacity. By comparison, Spain has six receiving plants. The new facility, known as Adriatic LNG Terminal, now joins the existing small terminal near La Spezia, on Italy's north-western coast, which is owned by the national pipeline operator, Snam Rete Gas. That plant was built between 1967 and 1970.

LNG is natural gas that is cooled to -162°C until it shrinks to a liquid that is 600 times smaller than its original volume so it can be transported by ship; it allows gas to be taken

to consumer markets from fields that would be uneconomical to connect by pipeline. The technology is critical to the development of Italy's energy market and could play an important role in supplying central Europe.

As domestic production diminishes, importing gas by sea will help Italy reduce dependency on Russia and Algeria, which together accounted for 58.8% of national consumption in 2008. The risk of this reliance was highlighted at the start of 2009 by Russia's on-going dispute with Ukraine. Some countries that rely heavily on Russian

gas including Bulgaria, Hungary and Serbia lost almost all their supplies amid freezing temperatures. At around the same time, a ship accidentally damaged one of the five sub-sea pipelines between Algeria and Sicily, a coincidence seized upon by Italian Minister for Economic Development Claudio Scajola. 'I wonder whether, faced with the Russian gas crisis, if the anchor of a perhaps bigger ship had damaged all five pipes and if we had lost Algerian gas supplies, what would have happened, without a hypothetical European plan on risks and mutual help between EU member states?' Scajola asked Parliament subsequently. 'We would have been in the same situation as Bulgaria.'

### Former monopoly |

An important part of reducing such a risk involves LNG, along with better interconnections between EU countries and more storage capacity, Scajola added. A law approved by Parliament in July included provisions for simplifying the authorisation procedures for LNG terminals (taking no longer than 200 days) and setting up a gas exchange. It also introduced a measure to reduce the levy on petrol in regions that host regasification plants (as well as oil and gas

extraction), lowering prices at the pump in the Veneto, for example, where the Rovigo terminal is located.

'Too little has been achieved at a national level, where storage and regasification capacities are much the same as in 2005, above all because of the long authorisation processes and the difficulty in overcoming obstacles regarding the location of new infrastructure,' the minister told Parliament earlier this year.

The arrival of the first LNG carrier at the Rovigo terminal in August was a major step in reversing that situation. The liquefied fuel brought on the ship Dukhan was needed to cool down the terminal's piping and tanks to prepare for distribution to the Italian pipeline system. When it reaches full capacity this autumn, the facility will be able to import 8 bcm (billion cubic meters) of natural gas annually, about 10% of Italy's demand and not much less than the national consumption of countries such as Austria and the Czech Republic. The plant is 45% owned by Exxon Mobil and 45% by Qatar Petroleum with the remaining 10% in the hands of Edison, Italy's second-biggest electric utility.

Milan-based Edison has secured 80% of the regasification capacity for 25 years. That translates into 6.4 bcm of gas a year that Edison won't have to buy domestically – in practice from Eni, the state-controlled former monopoly gas company and one of the biggest companies in the industry in Europe. Edison is proud to be the first company apart from Eni to import gas to Italy.

'The Adriatic LNG Terminal is a milestone in our country's energy history,' Umberto Quadrino, Edison's ceo, announced. 'The terminal opens a new supply route from Qatar, a strategic country which has not been linked to Italy up to now. This new infrastructure and gas source contribute to improved energy security for Italy. For Edison, this provides a more geographically diversified gas portfolio and continues progress toward our target of becoming fully independent in gas supply.'

Sourcing its own gas is a competitive advantage for a company like Edison, most of whose power plants run on natural gas and which is trying to build itself up into Eni's biggest domestic gas competitor. Edison's pre-tax profits have slumped this



Regasification terminal in Algeiras. Photo: Edison





Minister for Economic Development Claudio Scajola. Photo: Andreas Solaro/AFP

year because declining electricity prices are eating away at the margin in its power business; its activity selling gas, by contrast, is buoyant as expensive domestic purchases were slashed by half.

Edison expects gas sales to increase to 14.1 billion cubic meters this year from 13.5 billion in 2008. By 2013, the company aims to source all its gas needs directly, thanks to its participation in a pipeline project

### Football fields |

Aside from its importance for the Italian energy market, the Rovigo terminal has also been a feat of engineering. It is the first gravity-based structure (GBS) in the world for offshore LNG. It consists of a concrete structure containing inert ballasting material, sunk onto the seabed in about 30 metres of water. The structure is larger than two football fields and as high as a

for Italy, where gas and electricity prices are firmly above the EU average. There are a dozen projects for other plants around Italy's long coastline. The most advanced is the OLT Offshore terminal, co-owned by local utility Iride and Germany's Eon. The partners aim to start importing 3.75 bcm of gas a year from early 2011. Other projects include Snam Rete Gas's plan to expand its existing facility to 8 bcm a year, a project by oil refiner ERG and Shell for an 8-12 bcm terminal near the Priolo refinery in Sicily, two facilities proposed by Spain's Gas Natural, a vast plant at the southern port of Gioia Tauro planned by Iride and utility Sorgenia with capacity of 12 bcm a year, BG Group's long-standing attempt to build an LNG plant in Brindisi, a project for an 8 bcm-a-year plant costing €650 million at Porto Empedocle in Sicily by Enel, a second terminal planned by Edison, and projects by GDF-Suez and petrol company API (both in the Adriatic Sea near Ancona) and by Eon, in Trieste.

If several of these projects are successful along with new pipeline projects, Italy risks being swamped with excess gas. Granting authorisations will clearly be a political decision and depend on Minister Scajola's determination to develop a competitive gas market in Italy with excess capacity re-exported to countries in central and northern Europe. That may be opposed by Eni's desire to protect its domestic margins.

## *The terminal opens a new supply route from Qatar, a country which has not been linked to Italy up till now*

from the Caspian region, via Turkey and Greece, and a second pipeline link with Algeria. This will help boost profitability, according to investment bank CA Cheuvreux. It reckons Edison will increase its market share in Italy to 20% from 15% by 2013.

'Edison's LNG terminal is a valuable strategic asset, considering that in the short term there should be a shortage in the Italian gas market and Eni is still in the dominant position,' says CA Cheuvreux analyst Francesca Pezzoli. 'Moreover, if there is a cold winter, there is still the risk of significant gas shortage.'

10-floor building, although most of it is under water. Inside the concrete structure are two LNG storage tanks, each with a working capacity of 125,000 cubic meters.

GBS facilities have already been used in the oil industry, but this solution was chosen for the first time for LNG, despite the higher cost. The terminal was built in Algeiras, Spain, and towed to its current site last year. It will be served weekly by five ships coming from Ras Laffan LNG II in Ras Laffan city, Qatar, bringing Edison gas from that country's North Field.

Edison and its partners aren't alone, of course, in seeing the advantages of LNG

With production in the Netherlands and the North Sea declining, Scajola's ministry estimates that European imports will climb to 500 bcm in 2020 from 245 bcm in 2005. Italy could help avert an excessive reliance on Russia and Algeria by becoming a gas hub for the Mediterranean area. With 65% of Italy's electricity generation currently coming from burning gas, Scajola also has a chance to bring down wholesale power prices. Judging by his words, Scajola's intentions are clear: 'We need to speed up the evaluation of projects and construction times, and this can only happen effectively if we increase consensus about the strategic importance of new infrastructure and the decision process becomes more efficient: it's a task for Politics with a capital "P".' ■