More gas for the Spanish economy

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With the price of a barrel of Brent crude reaching record highs in early 2012 and the Fukushima nuclear disaster still fresh in people's minds, natural gas is emerging as a leading alternative energy choice.

Few sectors in Spain boast credentials like those of natural gas: It exerts a positive impact on the economy, continues to create quality jobs, generates investment at the rate of 1 billion euros a year, is competitive at the European level — and all this despite the severe crisis currently gripping the country.

In 2011 the gas sector accounted for 0.5 percent of Spain's GDP and employed more than 6,000 people, with an average salary exceeding 40,000 euros a year, nearly twice the national average.

The value of cumulative investment in the past 10 years has been around 11 billion euros, much of it in infrastructure, which has helped mitigate the recent sharp decline of the country's construction sector.

What's more, the price of industrial gas in Spain is 15 percent below the European average, serving as a boon for the country's beleaguered business community.

These are just some of the insights contained in a report on the impact of the natural gas sector on competitiveness and employment, published by the José Felipe Bertrán Chair of Governance and Leadership in Public Administration at IESE.

The study's authors, IESE Prof. José Ramón Pin and researcher Esperanza Suárez, conclude

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that, despite the industry's recent growth, Spain is still not taking full advantage of all the opportunities available in the sector.

Second source of primary energy

Natural gas fulfills the three basic requirements for a balanced energy policy: It is an energy source that is economically efficient, environmentally friendly, and offers greater safety and supply security than many other sources, including petroleum and nuclear energy.

Given such benefits, perhaps it should come as little surprise that natural gas accounts for a growing share in the energy mix, both in Spain and the rest of Europe.

In Spain, natural gas is the second source of primary energy and the only one to have helped significantly reduce the country's dependence on petroleum.

In 2010, Spain's oil imports accounted for 52 percent of the country's total energy consumption, down from 67 percent in 1990.

During the same period, natural gas more than doubled its share of the final energy mix, from 8 percent to 17 percent, while renewable sources of energy, which hardly existed in 1990, now account for 6 percent.

These days, natural gas not only satisfies an increasingly large part of final energy demand but is also used as a primary source for electricity generation in combined cycle plants.

In fact, nearly a third of total demand for natural gas in Spain goes into electricity generation.

Moving toward a "triple 20" commitment

Under the European Union's energy efficiency goals, by 2020 member states need to have reduced their CO_2 emissions by 20 percent.

The plan also calls for countries to boost their energy consumption derived from renewable sources by 20 percent, as well as improve their energy efficiency by 20 percent.

Natural gas will likely play a crucial role in achieving this triple objective.

Being the least polluting of the three main fossil fuels, it has the potential to raise productivity and energy efficiency in combined cycle power plants, while supporting the development and supply of energy from renewable sources.

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Aside from lowering energy bills, developing the natural gas market in Spain presents additional future opportunities.

The geographically strategic location of the Iberian Peninsula makes Spain an ideal gateway for entry of natural gas from North Africa.

The country has plentiful storage capacity for liquefied natural gas (LNG), an area in which it is currently Europe's leader.

Spain is also home to six of Europe's eight re-gasification plants, a sector in which it is currently ranked third in the world, after Japan and the United States.

Pending challenges

But becoming a gas hub for southern Europe requires moving toward a single European market that eliminates physical and logistical restrictions.

It also requires a stable regulatory framework that encourages long-term investment in infrastructure, along with new technologies to maintain and ensure the competitiveness of natural gas in the energy mix.

The report recommends that the Spanish government consider the possibility of using shale gas, a non-conventional source of gas whose production has accelerated at a rapid pace in countries such as the United States, Canada, Mexico, Argentina, Australia and China, but which is still in the embryonic stage in Europe.

Despite widespread concern about the high levels of investment required, as well as the potential harm that hydraulic fracturing, or fracking, may cause to the environment, shale gas offers Europe the opportunity to reduce its energy dependence on unstable African and Middle Eastern oil-producing nations, the report concludes.

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