

(statistic)

25%

★ In 2005, Russian energy giant Gazprom covered approximately 25% of the European Union's gas demand*, down from 36% in 2004. Industry statistics identified the most dependent countries as the Baltic states (100%), followed by Poland, Hungary and the Czech Republic (between 87 and 73%) and, far behind, Germany (41%) and France (26%). Countries close to North Sea production areas do not import any Russian gas.

* Source : BP Statistical Review

(focus)

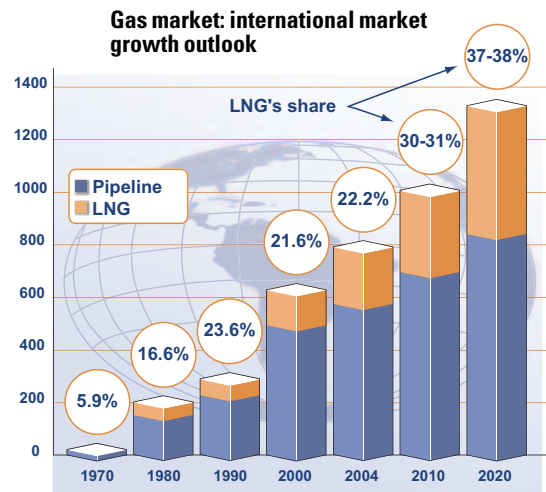
A Promising Outlook for LNG

Gas resources are unevenly distributed and located increasingly far from consumption centres, which make liquefied natural gas (LNG) the preferred alternative to diversify sources of supply and avoid the geopolitical difficulties of pipeline transit countries. Previously regional, markets are becoming global, and spot and short-term LNG transactions are expanding fast.

International LNG trade has risen by 7.2% a year since 1995—faster than pipe gas trade, which is growing by 6.2% a year—and accounted for 22% (138.5 million tonnes) of international gas trade in 2005. This figure is expected to increase to 38%, according to experts at Cedigaz, who forecast that world LNG trade will grow by 6.9% a year to reach 375 million tonnes in 2020.

A favourable environment

LNG offers the recognized advantage of flexibility and diversified supply. In addition, → ...continued on p.2



Source : Cedigaz

(market trends)

Generic drugs are a powerful weapon to help control health spending. Spotlight on this fast-growing industry.

Drugs/Pharmaceuticals

The Generic Generation

According to IMS Health, generics accounted for around 20% of drugs consumed worldwide in 2003. In value terms, they represented just under 10% of the market, but spending on them was up 16% for the year. That growth is expected to pick up speed

because a large number of blockbusters—drugs with sales in excess of €1 billion—will come off patent between 2005 and 2014. But there's a question mark over the future of generics, because profits are lower (a gross margin of 10 to 15% compared to 35%) → ...continued on p.2



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since 1990 costs have been reduced by 20% along the chain, from production to the regasification plant gate. Other factors spurring its development include higher gas prices in North America and Europe, stagnant gas production in the United States, declining North Sea output, and market deregulation, which has increased the number of operators and transactions and encouraged the emergence of independent importers and exporters (electric utilities). The high price of gas determines to a large extent the final destination of LNG—especially spot LNG—with producers and importers redirecting their cargoes in line with market bids.

The Middle East, playing a crucial role in global supply

Traditional and emerging markets alike offer strong growth potential to 2020. Asia is the leading consumer region, where demand for LNG is projected to grow by 4% a year and account for 45% of global demand. However, the United States will experience the biggest increase – 13% a year, moving ahead of Japan as the world's lead-

ing importer in 2015. Growth in Europe will be 8% a year. OPEC member countries, both current producers such as Abu Dhabi, Oman and Qatar, and future producers like Yemen and Iran, are projected to supply 58% of the world's LNG. Non-OECD countries would account for 30%. Although this dependence raises concerns about security of supply, they are tempered by the growing integration of operators across the LNG chain. ■

market trends

The Generic Generation

→ ...continued

for branded drugs) and legal costs are high in the event of a patent dispute. So two types of strategy are emerging.

On the one hand, the pharmaceutical giants are starting to produce their own generics, as is the case of Novartis and subsidiary Sandoz. This enables them to fight off competition from generic manufacturers, while leveraging the faster growth in generic sales (15% for Sandoz, versus 10% for the company's branded pharmaceuticals).

Meanwhile, generic manufacturers such as Israel's Teva and India's Dr. Reddy's are expanding their product portfolio with protected drugs, either tinkering with the formulation or launching new products.

One day, the two markets could partly overlap, stimulating the creation of new pharmaceutical companies in emerging economies in Eastern Europe, India, Brazil and China.

We are also seeing the emergence of biogenerics, which are manufactured from living organisms. In Europe, for example, Sandoz is getting ready to introduce Omnitrop, a generic growth hormone. However, it's hard to ensure that the copy delivers the same efficacy as the branded original, given that the fabrication method is based on biology rather than chemistry. There are some tough scientific and legal battles on the horizon. ■

The three stages of the LNG chain

Liquefaction: When natural gas is cooled to -163°C, it becomes liquid, with roughly 1/600th its initial volume. World liquefaction capacity is 176 Mt a year, divided among 13 countries.

Transport: Maintained at -163°C, LNG is shipped on dedicated carriers, with a world fleet of 191 vessels at end-2005.

Regasification: When it reaches its destination, the liquefied gas is warmed back to its gaseous state in LNG terminals near consumption regions. There are 47 terminals in service worldwide, including 25 in Japan, 11 in Europe and 4 in the United States.

(customers) **Saint-Gobain Isover**

“Continuously Innovating and Improving”

Isover is the world leader in the mineral wool market. Interview with Philippe Heringuez, manager of the company's plant in Orange, southern France.

Tell us about production at the plant.

At our plant in Orange, we produce more than 100,000 tonnes a year of insulation and lining materials made from mineral wool, which is around 50% of the French market. We're also the world leader in glass wool for insulation and associated products. The market is growing strongly, with products that can be used in a wide variety of floor to ceiling applications in the form of batts, loose fill or ready-to-use compounds.

The Orange plant mainly produces entry-level products for our biggest customer segment – buildings, including homes and industrial and commercial premises.

Does this age-old product have any surprises in store?

It's already being used in more high-tech applications in the shipbuilding industry, for example, and in hydroponics, where glass wool is used as a substrate. And we're committed to continuous innovation. In cruise ships,

for instance, shipbuilders can add several extra cabins if we make our products less bulky by even a few centimetres. We're continuously improving the technical and acoustic properties of our products, as well as their durability and surface finish, to make them even easier to handle and install.

How are you optimizing the production process?

We're focusing on several avenues of improvement, including packaging our products to make



them easier to transport. As for the production process itself, a lot of air is required to produce thermal insulation products, so we're particularly committed to improving energy and fluid management. That's why our partnership with Dalkia(1) includes an energy efficiency guarantee. ■

(1) Design, construction and operation of a compressed air plant with a capacity of more than 500 million cubic metres per year.

Energy

Energy Price Indexing: a complex mechanism

The law of supply and demand may be simple, but it becomes a lot more complicated when applied to energy markets. Even an expression like “oil at \$70 a barrel” is an oversimplification. Below, we take a closer look behind the scenes.

Oil and gas prices have soared in the last two years, ratcheting up costs for manufacturers and consumers alike. In a market typically shaped by underlying trends and long-term investments, skyrocketing prices are ushering in a new era of scarcer, more expensive energy.

Supply saturation and market rigidity

Unlike the 1973 oil shock, which was caused by a political show of strength, today’s situation is a textbook illustration of market mechanisms—demand is growing faster than supply. Continent-sized countries, such as China, India and the United States, are driving growth in global demand, which rose from less than 1% a year in 2001 to peak at 3.8% in 2004 before declining to 2.4% in 2005.

According to IEA forecasts, global demand is expected to continue to grow between 2 and 2.5% in the near future.

However, the problem is that production can’t keep pace. The last giant oil fields were discovered 25 years ago. To find new reserves, explorers have to go ever deeper, where conditions are increasingly extreme. For example, the world’s deepest field, located in the United Kingdom, lies 6,500 meters down, with temperatures of 190°C and pressure of 1,100 bar.

A textbook illustration of market mechanisms, unlike the 1973 oil shock.

Under these circumstances, market mechanisms push prices up. Normally, demand would slow and supply would rise in response until things come back into balance. But theory doesn’t necessarily hold true when it comes to energy.

Bottleneck

On the demand side, there’s relatively little flexibility, since consumers can’t easily shift from one energy to another, while on the supply side, investors are still conservative, given the long lead time between making an investment decision and bringing a project on stream. This supply

rigidity is the underlying cause of sharp price fluctuations in spot markets, which react immediately to any change in demand, and in futures markets, where speculation tends to turn oil into a financial commodity.

Making matters worse, refineries are being utilized at close to full capacity. Here again, companies are reluctant to invest, because it costs \$3 to \$4 billion and takes several years to build a refinery. And refiners are still haunted by the spectre of over-capacity.

Gas could be an alternative, but a lack of transport capacity—pipelines, ports and LNG carriers—is hampering its ability to respond to higher demand. That’s why major capital spending programs are underway on gas pipelines and the LNG chain.

Oil and gas, historical links

Gas is indexed to the price of oil for historical reasons. It was developed after oil, as a competing energy, and to offset expensive investments, suppliers wanted long-term contracts. As a guarantee, buyers then insisted that the contracts be indexed to oil. This could all change as the market is liberalized. Specific indexes are now emerging, notably in the United States and the United Kingdom, that could spur a gradual disconnect in prices, which would make gas relatively less expensive than oil. In addition, shipping natural gas in liquefied form by LNG carrier is cheaper and more profitable than gas

Some of the benefits of higher prices

Fossil fuel reserves are expressed as the number of years of consumption, assuming the same prices, grades, technologies and amounts consumed. This means that any increase in price automatically extends reserve life. Reserves that were not booked in the past—heavy oil and Canadian oil sands, for example—are now becoming financially viable to develop.

In addition, higher prices make more expensive investments, such as horizontal drilling, worthwhile. They also encourage consumers to invest in energy conservation and energy efficiency. Developing alternative resources makes much more sense, curbing fossil fuel consumption and increasing the value of reserves.

Three marker crudes

There are no fewer than 400 types of crude, each of a different grade and price. The three marker crudes are West Texas Intermediate (WTI) in North America, Brent in Europe and Dubai in Asia. They are the benchmarks used to determine the price of other oils. For instance, Nigeria’s Bonny Light is marked to Brent, plus 50 cents to \$1 per barrel, depending on the period.

pipelines for distances greater than 3,000 kilometres, which is also making supply more flexible, since a ship can always change its port of call. ■

Wyeth

Prescribing the Right Solutions

Since 2002, Dalkia has been delivering effective support that enables the biopharmaceutical group Wyeth to comply with the rigorous current good manufacturing practice (cGMP) standards required by pharmaceutical industry regulators.



Wyth is one of the world's largest research-driven pharmaceutical and healthcare products companies. It is a leader in the discovery, development, manufacturing and marketing of pharmaceuticals, vaccines, biotechnology products and non-prescription

medicines that improve the quality of life for people worldwide. The Company's major divisions include Wyeth Pharmaceuticals, Wyeth Consumer Healthcare and Fort Dodge Animal Health. Over the years, Wyeth products have been sold in more than 140 countries and have helped drive sustained growth in the company's business. To help sustain this momentum Wyeth commenced construction of one of the largest bio-pharmaceutical production sites in the world, at Grange Castle in South County Dublin, Ireland, in February 2001 culminating with the official opening of the facility on the 8th September 2005. The entire plant consists of 5 buildings on a 90-acre site.

Strict standards and good practices

Dalkia has been involved in this exciting project since April 2002, supporting Wyeth through the new plant's construction and start-up. Today Dalkia employs 150 people on this site providing a wide range of services including utilities, operations & maintenance, calibrations, and facilities management services for the entire operation. These services are provided 365 days a year on a 24/7 basis.

Since 2002, Dalkia's collaboration with Wyeth has resulted in a new two-year contract for the operation and maintenance of utilities and the global management of the five buildings on the site. This contract came into effect from 1st July 2005. All of the services are designed, operated & maintained to meet the challenges of compliance with the stringent current good manufacturing practices applicable in the pharmaceutical industry that Wyeth operates in. ■

Amcor Flexibles Full Steam Ahead

With help from Dalkia, Amcor Flexibles opened its new plant in Burgos, Spain, several months ahead of schedule.

Australia-based Amcor, one of the world's largest packaging companies, opened a new flexible plastic packaging plant in Burgos, some 200 kilometres north of Madrid, in September 2000.

Dalkia is responsible for designing, building and operating installations to deliver 20,000 metric tons of steam, chilled water and 2 million normal cubic

meters of compressed air per year. The performance clause for operation covered supply reliability and fluid quality. The customer met its targets of reducing fluid production costs. What's more, the plant was commissioned ahead of schedule. This success story prompted Amcor Flexibles to extend its partnership with Dalkia for 15 years. ■

