German Market History

Executive Summary

- Gas and power markets liberalised in 1998, but competition failed to develop
- Energy law of 2005 created regulator, enforced unbundling and fair network access
- Gas and power markets still suffering from supplier concentration, non-transparent price formation processes and high end user prices.

The German gas and power markets were nominally fully liberalised in 1998. Competition failed to develop in any significant form as the industry was left to self-regulate – Germany was the only country to allow this. With the approval of the new Energy Act in 2005, competition picked up in the power market under the guardianship of a new regulator. The new law also initiated a series of sweeping reforms to the gas market transport regime and structure. In effect, the gas retail market finally began to open in October 2006. Switching rates have increased steadily ever since, but absolute numbers remain fairly low. The number of new entrants in both power and gas remains negligible.

Laws and Regulation

The 2005 Energy Act transposed the EU’s 2nd Electricity and Gas Directives into national law. The law created a regulatory authority, the Bundesnetzagentur (BNA), in addition to this legal unbundling for suppliers with more than 100 000 customers was enforced. One of the regulator’s first acts was the reform of power transmission and distribution charges, subjecting them to an ex-post approval process. Subsequently, charges were lowered by 15% on average in 2007 . From 2009 onwards, the framework will change to benchmark regulation, placing a cap on distribution revenues.

Although the German gas market was nominally opened in 1998 competition failed to develop due to a complex transport tariff regime coupled with a fragmented high pressure gas transport network. Prior to the introduction of entry-exit transport tariffs in 2006, a supply contract thus involved negotiating transport contracts (postalised system) with all network owners which the gas would transit, making transport prohibitively expensive. Thus it was only after this reform had taken place that competition started to develop. Concomitant with this, the German regulator is encouraging a reduction of network areas: there will be eight from October 2008 onwards, but it is hoped that eventually only two - one for high-cal and one for low-cal gas - will remain.

Another important step for market liberalisation was the introduction of a unified switching process for all market participants. This included standard processing steps and data specifications. For gas, these industry standards which will resemble the ones for electricity will be mandatory from August 2008 onwards.

Customer Switching

Reliable supplier switching statistics are difficult to obtain in Germany. 2006 and especially 2007 bucked the trend in a previously dormant power market, with 690 000 and 1 300 000 households respectively switching supplier . This unprecedented acceleration was due in part to energy price inflation and accompanying media coverage which widely publicised the ease of the supplier switching process. Prices increased again by on average 7 per cent year-on-year 2007/08 , leading to expectations that the switching market will double again in size in 2008. The German domestic switching market may be finally approaching maturity ten years after market opening.

Although there are fewer alternative suppliers in the gas market compared to the power market, increasing numbers of suppliers offer gas and sometimes dual fuel, and competition is on the increase. In 2005, a mere 302 customers (domestic, industrial, commercial) switched supplier. In 2006, 5688 domestic customers had switched supplier, by 2007 the overall number had climbed to 175 000.

German Electricity Market

The German power market is the largest in Europe. The total size of the German market was 539.5 TWh in 2006, excluding power plants' own use and losses. Of this, the domestic market consumed 142 TWh, a share of just over a quarter. Consumption has been virtually static over the last few years as prices have increased and customers have become more energy efficient. There are just under 40 million domestic customers in Germany.

Currently, around 10% of the total domestic market (4 million customers) have switched provider.

Retail

The German retail market is dominated by four vertically integrated companies: E.on, RWE, Vattenfall and EnBW, who supply approximately 50% of the market . In addition to this, there are approximately 60 regional suppliers and 725 municipal suppliers, who have both distribution and retail assets. In addition there are around 150 pure retail companies. There is much cross-ownership between suppliers, as the big four have shares in many municipal suppliers, as well as direct ownership of the strongest retail only brands (Yello, E Wie Einfach, eprimo). There is a strong niche market for renewable suppliers – these account for 1% of the total market share, and 10% of the switching market. An increase in competition has had a marked effect on the diversity and complexity of tariffs on offer. Suppliers now offer prepayment packages at a discount, as well as traditional monthly payment tariffs. The municipal suppliers are increasingly focussing on service and quality customer service.

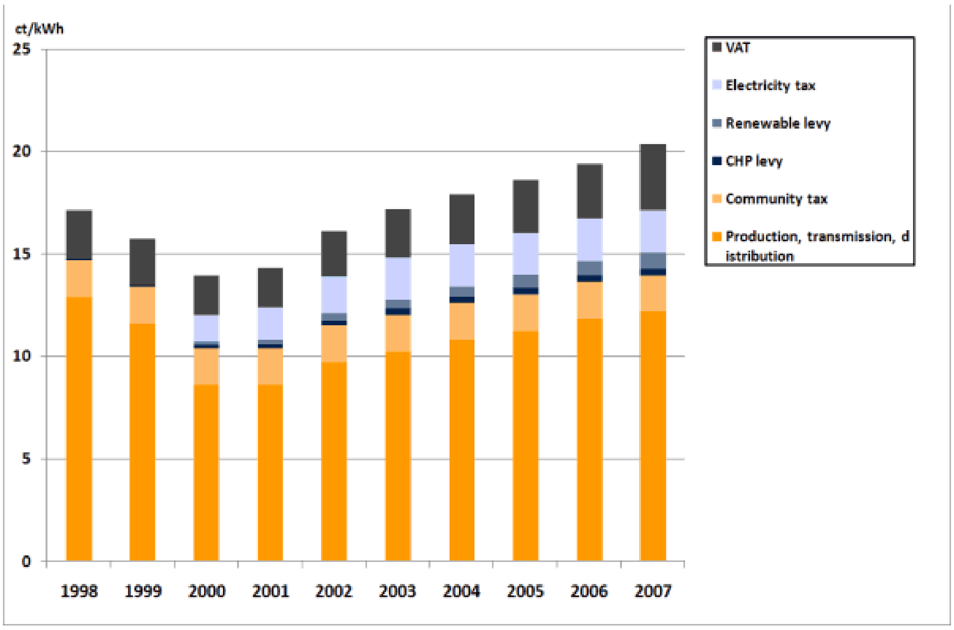

Figure 1: Average domestic power prices, 1998 – present

Price Development

The graph above illustrates price components of a typical German electricity tariff including all applicable taxes. The final price represents the cost the average German pays per kWh. Prices fell steeply after the market was liberalised in 1998, but have since more than regained the pre-liberalisation level. Both energy costs and taxes have risen. A new tax, the Stromsteuer or electricity tax, was introduced by the government in 2000. Germany is now the 3rd most expensive country in Europe in which to buy domestic power. Taxation (excluding VAT) accounts for around 25% of energy prices, transmission and distribution costs account for 25-30% and energy costs (and supplier margin) around 45-50% of total pre-VAT prices.

Until July 2007 the default supply tariff ("Grundversorgungstarif") was subject to ex-post approval by the regional governments. It was subsequently abolished. Most suppliers now offer at least two tariffs, the default supply tariff and another, often cheaper, option. Up to 40% of German customers have switched away from the default supply tariff.

Record power prices coupled with bumper profits for suppliers have increased consumer mistrust in market mechanisms, leading to cartel office investigations of power prices. Increasingly powerful legal tools enable the federal cartel office to act on suspicions of market abuse.

Gas market

The German gas market is the second largest in Europe (behind Britain), consuming a total of 648 TWh/annum, of which domestic customers use 283 TWh . Private consumption has decreased in recent years, despite increases in the numbers of households connected to the natural gas network. The German market is split into a high-cal and low-cal network due to the differential energy content of domestic and imported (CIS, Norwegian) gas.

The supply market is dominated by E.on Ruhrgas which sells around 50% of Germany's gas by volume and holds shares in 30% of the regional distribution companies . Further large market shares are held by RWE, VNG, Wingas and BEB. The market suffers from a lack of liquidity in both capacity and commodity: long-term supply contracts form a stranglehold on import pipelines and only recently were municipalities and small suppliers liberated from contracts which tied them to an upstream supplier for 15-20 years.

There are 730 vertically integrated DSO/supplier businesses in the gas market, which supply a large fraction of end customers. There is a great degree of cross-ownership in the market, and alternative sources of gas are still hard to find for end suppliers, which has a dampening effect on the number of new entrants in the market. Currently Nuon, a Dutch gas and power supplier, is the only foreign new entrant. Many local players, however, have expanded their sales regions to supply gas, and dual fuel contracts both in either conurbations or nationwide.

Prices

Germany has the third highest gas costs in the EU (behind Sweden and Ireland), based on the pre-tax costs. The chart below shows a comparison of EU gas prices. The three columns represent prices without tax, including any national gas tax and finally including Value Added Tax. The chart is ranked by end price, from highest to lowest. Prices are from Eurostat, an average of the first six months of 2007, for domestic consumers using the Eurostat D3 category (23 250 kWh annual usage). The pre-tax price for German gas is 3.88 ct/kWh, 0.64 ct higher than the EU average (3.24 ct/kWh).

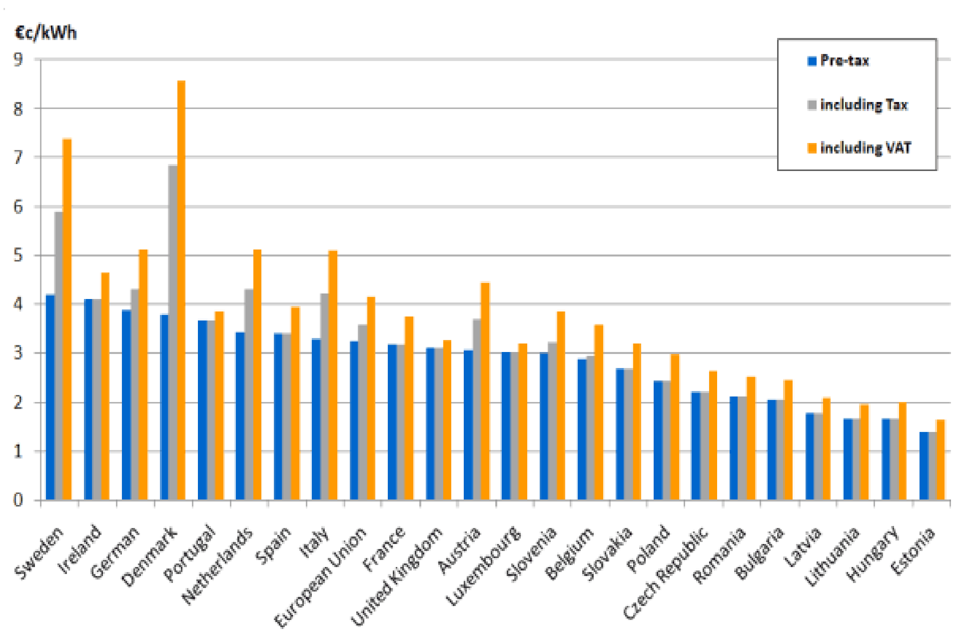

Figure 2: 2007 gas prices, 23250 kWh annual consumption, source: Eurostat

The total post-tax price was 5.125 ct/kWh - the tax burden is also significant in a European context. The government levies a gas tax of 1.54 ct/kWh. Prices for domestic/small enterprise customers are indexed to light fuel oil prices. These in turn are closely correlated to Brent crude prices. As oil prices have risen, so gas prices have followed suit.

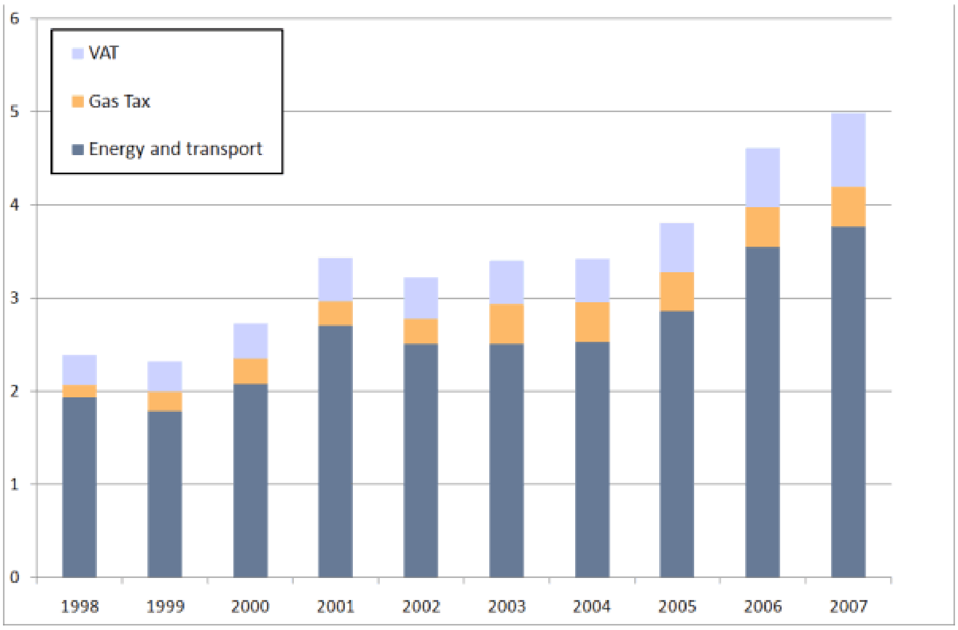

Figure 3: German domestic gas prices 1998 – present, source: Eurostat

The above graph shows annual average prices for 1 kWh gas for domestic customers using gas for heating, warm water and cooking purposes. The consumers have the Eurostat profile D3, 23 250 kWh annual consumption. Prices have increased significantly since 2004, when the oil price commenced its seemingly unstoppable rise towards the $100/barrel mark.