Issue 1: October 2004

DG Energy and Transport

QUARTERLY REVIEW OF EUROPEAN ELECTRICITY PRICES

Recent price developments

Wholesale markets

Spot markets

Electricity prices on spot wholesale markets have fallen in the last six months. They are significantly lower than the summer of 2003. Indeed, other than Italy, spot prices have stabilised within the range €27-32/MWh. Prices in the Netherlands have fallen the most and are now very similar to those in neighbouring regions with a modest €2-4/MWh premium over the German price. The recently launched Italian power exchange has been clearing at approximately €50-60/MWh on average. It is expected that prices in this market will also stabilise withmaturity and as new investments come on line.

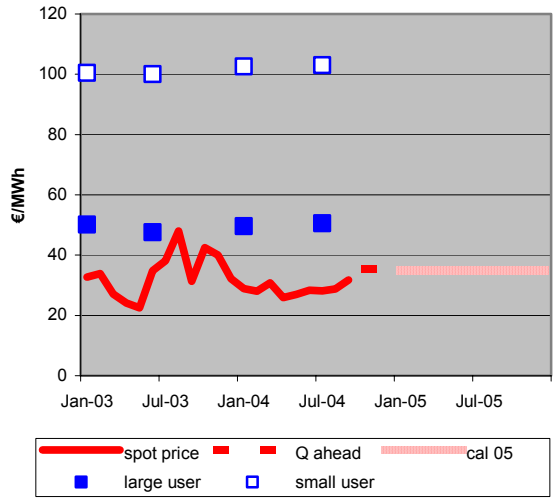
Forward prices

Prices reported on forward exchanges (both standardised and bilateral), show that prices are expected to increase in the next year. Prices for delivery in the forthcoming two quarters are, according to Platts, around €35/MWh in Germany and France and exceed €40/MWh in the Netherlands. Prices in the UK markets are even higher and exceed €50/MWh for delivery in Q1 2005. Both Nordic and Spanish markets have stable forward prices for 2005 at around the €30/MW mark. Forward prices for 2006-07 are available only on the Nordic market. In this case, prices are also expected to be at the €30/MWh level

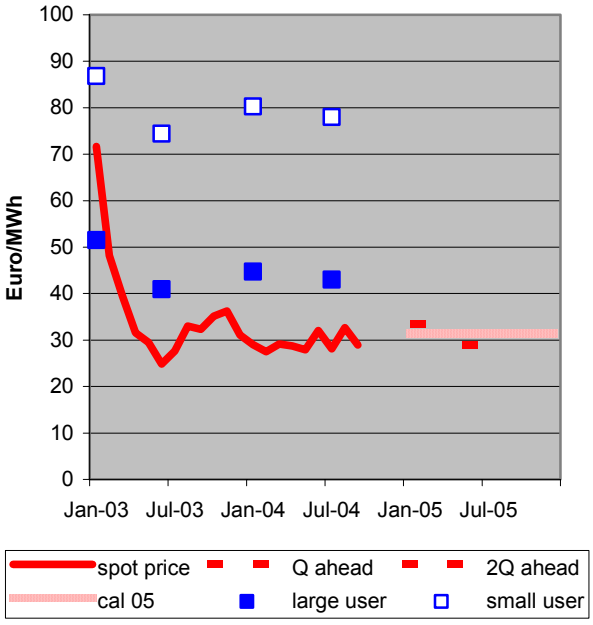
Retail market

Although wholesale prices have converged there remain sizable differences in prices to end users. Price differences increasingly reflect the effectiveness of liberalisation measures. Large consumers are generally paying around €40/MWh in the UK and Scandinavia compared to €50/MWh in the west European and Iberian regions and €70/MWh in Italy. Similarly for smaller users, the average is roughly €80/MWh in the UK and Nordic regions compared to €100/MWh in most other areas. The charts below summarise the main developments in the last two years by region.

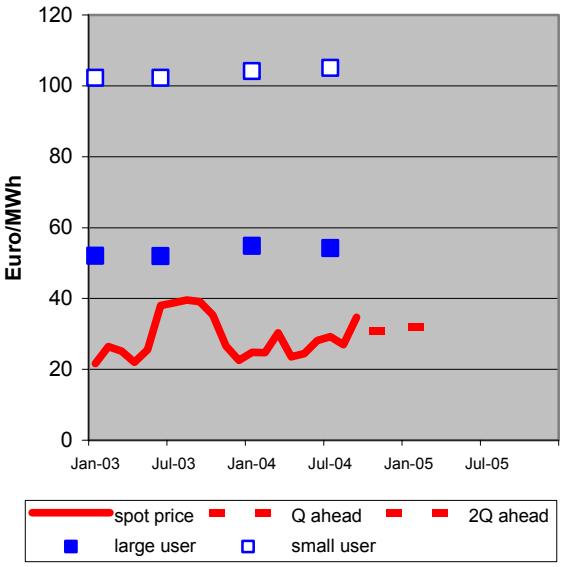
*Graph 1 Summary of average wholesale and retail prices 2003-2004: **"western Europe" BE, NL, FR, DE, AT***



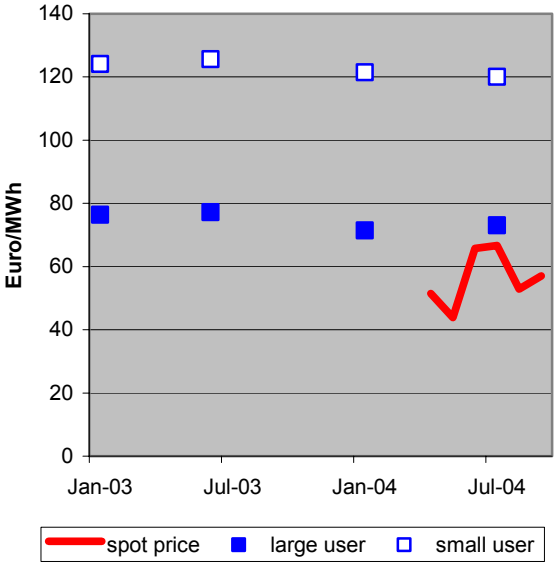
*Graph 2 Summary of average wholesale and retail prices 2003-2004: **Nordic region***



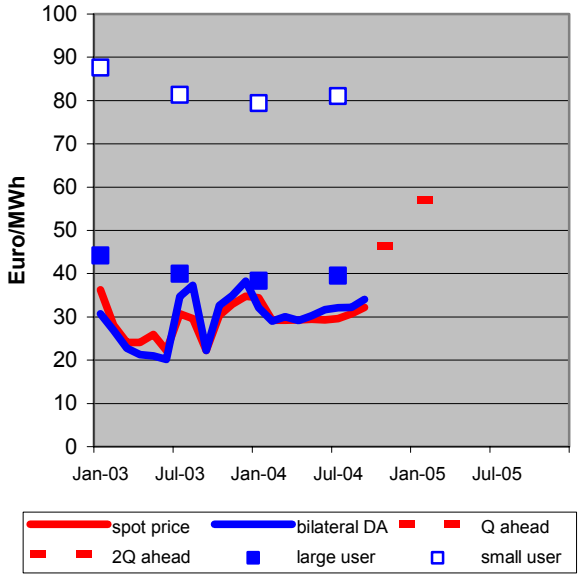
Graph 3 Summary of average wholesale and retail prices 2002-2004: ***Iberian region***



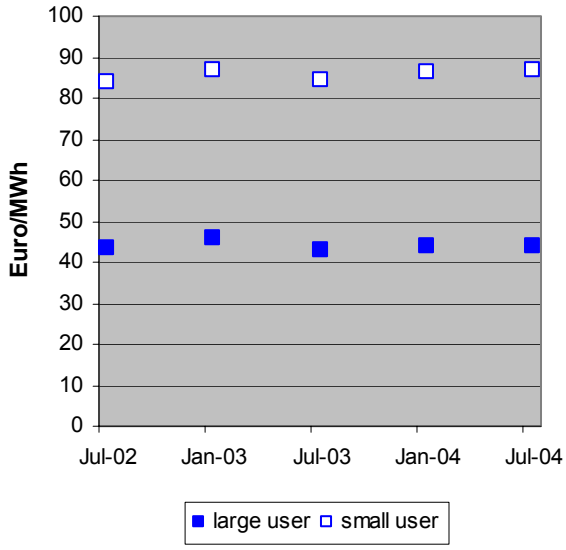
Graph 4 Summary of average wholesale and retail prices 2002-2004: ***Italy***



Graph 5 Summary of average wholesale and retail prices 2002-2004: ***UK***



Graph 6 Summary of average retail prices 2002-2004: ***Centrel (PL, CZ, SL, HU)***



Source for Forward prices:
Platts; "Power in Europe"
Nordpool Financial Market
EEX Terminmarkt

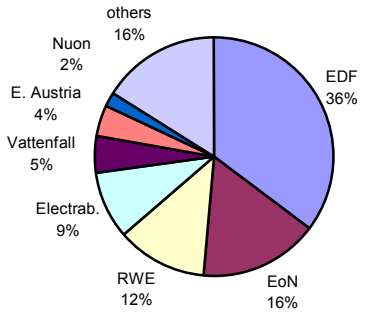
SUMMARY OF MARKET CHARACTERISTICS

West Continental Market (FR, DE, BENELUX, AT)

Supply demand position

The current supply demand position as reported in the most recent UCTE system adequacy forecast shows that there remains some significant reserve capacity for the region as a whole. Around 25GW of "remaining capacity" were estimated to be available for July 2004 compared to expected peak demand of 175-180GW. This still indicates some excess capacity is available in this market. Forecasts indicate a steadily decreasing generation adequacy in this region, notably in Germany from 2004, Belgium from 2006 and the Netherlands and France from 2010. This will normally tend to lead to an upward drift in prices towards the cost of new plant.

Market structure



The chart above shows that, in effect, the market in this region is characterised by a structure where there are four-six large companies plus a range of smaller operators. There are a number of concerns that such a level of concentration will tend to lead to oligipolistic pricing and prevent some of the efficiency gains that expected from the competitive market.

Prices have remained relatively stable in this section of the European market despite some volatility in wholesale prices. Weather conditions to date in 2004 have not tested the market in the same way as in the previous year.

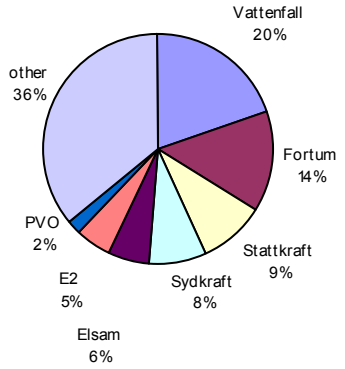
Nordic market

Supply demand position

In the Nordic region, the supply-demand balance remains relatively tight. On the basis of the UCTE definitions, the level of "remaining capacity" is probably close to zero. Forecasts by the system operators expect the system to depend on imports from other regions and Russia by 2005-06 in the event of a cold winter preceded by dry conditions.

However much depends on the level of rainfall in the generally hydro based Nordic system. Another consideration in the Nordic market is that the demand response is relatively strong which has the effect of constraining high price episodes.

Market structure



The chart above demonstrates the good market structure that exists in the Nordic market. Interconnection between the countries is relatively strong and this leads to a situation where the level of competition is adequate to deliver a competitively priced supply of electricity.

End user prices are, however, significantly below those in other parts of the European market. This would appear to be the result of more effective competition driving down the operating margins of supply companies.

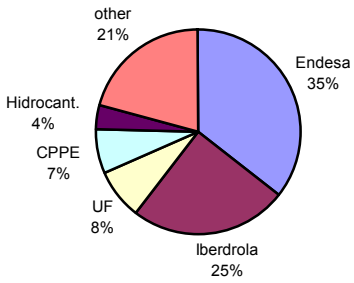
Iberian market

Supply demand position

Demand for electricity in the Iberian region is increasing significantly. The region also has a relatively high dependence on hydro and dry conditions have, in the past, led to episodes of increases in price levels. However, current UCTE data shows a level of "remaining capacity" at around 8GW for summer 2004 compared to total maximum load of 40-42GW which would appear to be a comfortable position.

UCTE forecasts of generation adequacy in 2010 for Spain and Portugal are optimistic. However, these are based on assumptions of plentiful new investments coming on line during the 2005-2010 period. Significant investment in new generation capacity is in progress.

Market structure



Currently, it would appear that the Iberian market is somewhat dominated by the two largest companies. This, when combined with the operation of the stranded cost regime, has tended to distort the wholesale market with prices moving in rather a narrow range in most periods. End user prices are regulated an this tends to constrain the degree of competition.

Greater interconnection between Spain and Portugal may improve this situation. Investments from new entrants into the generation market will also tend to erode the market share of the main companies over time.

A key feature of the Spanish market is the retention of end-user price controls, even for industrial users. This means that prices have been very stable, despite the occasional volatility of the spot market. prices to final customers are very similar to those prevailing in Western European market.

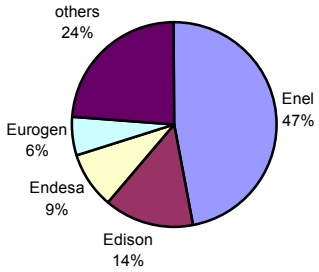
Italian market

Supply demand position

Italy suffers from a deficit of generation capacity. UCTE figures suggest that the level of "remaining capacity" is only 2GW, compared to maximum load of around 55GW. The system is therefore reliant on capacity imported electricity and may be vulnerable to unexpected outages and system failures.

This situation, as well as the unfavourable cost structure of the generation park in Italy has led to high prices in the recently launched wholesale market. However, these high prices should, in due course, bring forward new investment which will in turn reduce costs and prices.

Market structure



The graph above shows that, despite the divestments carried out in recent years, Enel retains a very significant share of generation capacity.

Apart from this, however, the remaining segment of the industry is well dispersed in competing companies which should be able to challenge the incumbent's position. New investment, which is also likely in the coming years, will also further erode the position of Enel.

Prices to end-users are the highest in Europe. However the supply market would appear to be performing reasonably well considering the wholesale price and further developments in competition should restrict supply margins.

The Italian electricity market is still in transition. A transparent spot market will increase incentives for efficiency and should provide incentives for new investment. Spot prices should reduce over time as inefficient oil fired plant is replaced by modern gas fired generation.

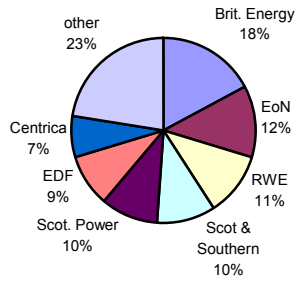
UK market

Supply demand position

In the UK, there is still a considerable cushion of spare capacity including "mothballed" capacity, which is taken into and out of service in response to price movements. In total this amounts to some 15GW of reserve capacity over and above the maximum load of around 56GW. However this definition is less restrictive than the UCTE "remaining capacity" approach and it is likely that a comparable figure for the UK is more like 5-10GW.

While this situation continues, prices are likely to stay below long-run marginal costs of major new generation investments. In the longer term, planned nuclear closures will remove capacity and new investment will be needed as a result.

Market structure



The above chart shows approximate market shares to the GB electricity market which, after the implementation of the BETTA project will operate as a single region. This shows a decentralised market structure which helps assure a high level of competition.

End user prices in the UK have fallen in recent years and are now among the lowest in the EU and rather similar to those prevailing in the Nordic market. Moderate increases in prices levels are, however, expected during 2004.

Competition in the GB market is well established with a sufficient number of players. This has led to significant improvements in the competitiveness of the sector which continues to benefit both large and small customers.

Central and Eastern market (CZ, SK, PL, HU, SI)

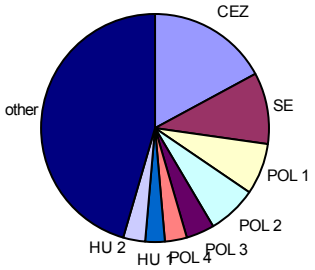
Supply demand position

Currently the supply demand position in these countries is such that there is a large surplus of generation. This was estimated at some 11GW for January 2005 by the UCTE projection, most of which is in Poland. This compares to around 43GW for maximum demand in the region.

Currently it is expected that without extraordinary changes in both the generating capacity and the load, this block will retain a surplus of generation over load of around 12%, even by 2010. This compares to the reference level of 5%.

It is likely that these countries will, instead, make a contribution to security of supply by exporting to other regions. With a surplus of supply, prices are expected to remain low.

Market structure



Currently, the market structure of the electricity industry in the central European electricity is very competitive, mainly as a result of the situation in Poland. This is, however changing as moves to consolidate the Polish generation sector are underway. Two large groups have already been created which will have a significant share of capacity. This may not have too much of a detrimental effect since there should still be a sufficient number of companies and a range of fringe players.

Interconnection within the Centrel area is good and there is no reason why a robust electricity market should not develop over time. The issue of long term PPAs still need to be resolved in a number of cases.

Overall, prices in the eastern European market are similar to the rest of the EU for large users. For smaller customers prices are at the low end, although they have increased somewhat in the last two years.

SUPPLEMENTARY ANALYSIS

ENERGY PRICE DEVELOPMENTS AND THEIR EFFECT ON POWER PRICES

In a competitive market, spot market electricity prices, will usually be determined by the marginal cost of the highest successful offer of production in any given period.

Usually this means that in off-peak periods prices are set by hydro and nuclear plant which has the lowest marginal costs. Coal generation plant currently tends to have a largest impact on spot prices during peak and mid-merit periods (i.e. during the day) although gas is becoming more influential. During the highest peaks, less efficient oil fired or distillate plant may set the price and in certain cases the response of demand will come into play.

Although oil is now rarely used for electricity generation, the benchmark crude oil prices will have an indirect effect on the electricity price since different primary fuels are substitutes to an extent. In some cases the link is more formal, such as the indexation of gas and oil prices in many purchase contracts.

The two tables below set out the implications of recent movements in the prices of coal and natural gas. Electricity generated by one or other of these fuels will tend to be setting the market prices for the majority of the time and determine the average prices being paid by final customers.

COAL FIRED PLANT COST TRENDS

(Euro/MWh)	Price	Marginal generation cost[1]	Total generation cost
June 2003	3.9	14	38
December 2003	6.2	18	42
June 2004	7.5	22	45

Coal prices have increased sharply in the last year, driven mainly by the sharp increase in demand from China. These increases affect electricity prices by increasing the cost of coal fired plant which is often sets the price in wholesale markets.

[1] Assuming 40% efficiency

GAS FIRED PLANT COST TRENDS

Euro/MWh	Price[2]	Marginal generation cost[3]	Total generation cost
June 2003	11.5	21	33
December 2003	11.9	22	34
June 2004	12.5	23	35

Gas prices have also increased, but much less sharply than coal. However, in the light of recent increases in oil prices the trend for gas will continue to be upward.

At current price levels, the marginal cost of coal fired and gas fired plant is very similar at around €22-24/MWh for the most efficient plant. Where prices are higher than this it implies that older, less efficient plant is being used and that this is setting the wholesale price.

[2] Border price plus estimated €2/MWh transport cost

[3] Assuming 60% efficiency