A FOCUS ON ENERGY TRADING
POWER TRADING MARKETS CONTINUE TO GROW

The turnover in the most important trading areas – Germany, Scandinavia, France and the Netherlands – has shown continued growth during the past year. The industry is well equipped to deal with further challenges. A better market design is one of the important issues on the agenda.

The power trading volumes* in the most important markets in Europe have seen further growth throughout the past year. Germany continues to be the market leader with a trading volume of around 4,100 terawatt hours (TWh). Scandinavia is second with a volume of around 3,000 TWh. This is then followed by the Netherlands and France. In total, the trading volume for these countries reached a level of almost 8,000 TWh in 2008 (2007: around 6,400 TWh).

The international trading prices for energy showed the opposite development. Due to the economic crisis, the prices for energy continued to slide right up to the end of the year. On 31 December, Brent Future was trading at $40.15/bbl. Coal and gas prices were also down considerably. The closing price of the API#2Index, for example, was $93.27/t, and gas prices for next year delivery were quoted at the EEX at €22.25/MWh. The prices for steel and aluminium have fallen sharply since their all-time high in the summer of 2008. Since the beginning of 2009 the forward curve for energy prices has been moving sideways without showing any clear upwards or downwards trend.

This slump could reach the power trading market, but it will not hit it with full strength. The prices for base loads in Germany were around €63 at the beginning of 2008 and then moved up to an all-time high of over €90 in mid year to then drop to less than €55 by the end of the year. This proves that markets function in all directions. How the power trading prices will develop in the years to come is still rather uncertain. At the EEX at the end of January, for example, power futures for the years 2010 to 2013 were trading at prices between €50 and close to €63.

* Trading at exchanges and on electronic trading platforms

Essent strengthens RWE’s leading position in European power trading

In January 2009, RWE announced the planned purchase of Essent, the Dutch power and gas supplier. The completion of the deal is expected to take place in the third quarter of 2009. Essent Trading has a powerful position on the power and gas trading markets. This will increase RWE’s power trading volume by around 225 TWh to a total of around 1,425 TWh, the gas volumes by around 13 billion m3 to a total of circa 53 billion m3 and the coal trading volumes by around 100 million tonnes to a total of some 230 million tonnes. That is a leading position in terms of European energy trading volumes. After the integration of the Essent trading activities, RWE Supply & Trading will be active in all important trading markets in Eastern and Western Europe, thereby significantly improving the opportunities to procure fuels at market prices. In addition it will also help to develop the company’s potential for short-term, cross-border optimisation of its market position.

More Market Design

The developments in power and gas trading could be much more dynamic than they are at the moment. To achieve this, a number of visible and invisible market entry barriers need to be removed. This includes the patchwork of various national power trading regulations, insufficient opportunities to market transport capacities and in some locations an absolutely inadequate supply of information on supply and demand. In order to meet these challenges, Europe needs to reach a “Schengen” agreement on power trading. This would include functioning power spot markets across...
Europe, cross-border “intra-day” markets as well as futures markets where it would be possible to hedge physical risks, a European-wide trading market for transportation rights as well as a unified set of rules on transparency with respect to the most important information on supply and demand. Market participants need this information in order to be able to form a well-founded opinion on the market price and its possible development.

What we really need is to create a truly European gas market, a reduction in the number of market areas, a reduction in the number of gas grid operators, more market involvement in the allocation and use of transportation capacities, more information on supply and demand and above all: more market participants. Gas traders say: the possibilities for active gas trading are there, but it is the greatest critics – industry and municipal utilities companies – who are still very much at the sidelines.

Top position for RWE’s energy trading activities

RWE Supply & Trading takes up top positions in this year’s rankings as published by the industry journal ‘Energy Risk’. Based on a survey of more than 2,000 banks, brokers, customers and energy traders around the world, the company once again ranked among the top positions. In the German futures market, RWE came first and with British power trading it went from not ranking at all to to first place in the same category. The company also got a ‘bronze’ on the British power spot markets; RWE was not in the top positions here in the previous year either. In the gas trading category for the E.ON Ruhrgas market area, RWE successfully defended its previous year’s first place position. On the Dutch TTF market, the company moved up two places to rank third.

Power trading volume in continental Europe show continued growth: a sign for marketability.
THE POWER WHOLESALE MARKET

Trading

„Wholesale“-Market

- Over the counter (OTC-market)
  (e-OTC Germany* 2008: 2.705 TWh)
  - spot market
  - forward market
    - physical
    - forwards/options/structured products
      Compliance: physical and financial
  - OTC-Clearing
    EEX 2008: 838 TWh
  - futures/options

- Exchange
  (EEX**2008: 1.319 TWh)
  - spot market
    (EEX**2008: 154.4 TWh)
  - forward market
    (EEX**2008: 1.165 TWh)
  - physical
  - compliance: predominantly financial

* without OTC-Clearing
** Incl. OTC-Clearing
“WE NEED A GREATER DIVERSITY IN GAS SUPPLY”

The gas conflict at the beginning of 2009 has resulted in lively debates about the best way to ensure greater security and continuity for European gas supplies. The “Nabucco” gas pipeline is to bring gas from the Caspian region to Europe. Stefan Judisch, Chief Commercial Officer (Supply) of RWE Supply & Trading talks about the project and its future development.

How quickly can the planning stage and the preparations for the Nabucco pipeline project be completed?

Judisch: Project planning for Nabucco is already in an advanced stage. The transit countries Turkey, Bulgaria, Rumania, Hungary and Austria still have to sign the agreements covering all the legal questions connected with the pipeline construction. We expect to have these signed in the first half of 2009. The first pipes will probably be laid in 2011. We assume that the first 8 billion cubic meters will flow from Turkey through the Balkans to Austria and then on to the western European countries in 2014.

“This European project fits perfectly to RWE – it is “the energy to lead” in its very best sense. Because what we need are new answers in order to be able, in the future, to avoid energy crises like the one we just recently had.”

How can RWE assist in moving the Nabucco project forward?

Judisch: When it comes to our market capitalisation we are the largest of the six Nabucco owners each of whom has equal rights. That means that we are the ones who have the greatest capacity for carrying risk. Because we are seen as a German company we also bring Germany along into the project. This European project is a perfect complement to RWE’s other business – it is the “energy to lead” in its best sense.

Because what we need are new answers in order to be able, in the future, to avoid energy crises like the one we just recently had.

Many believe that the costs for the pipeline are too high. Can this project be financed?

Judisch: Currently we are estimating costs of around € 8 billion. That pretty much puts us on the safe side because these costs were calculated at a time when steel prices were much higher. In relation to its length ~ 3,300 km – Nabucco is worth its price and is absolutely competitive with comparable projects.

As far as the financing is concerned, approximately 30 % of the total is equity capital put into the project in equal parts by the consortium partners. The other 70 % has to be raised on the capital markets. I very much welcome the fact that the EU, at its ministerial meeting in Budapest (at the end of January, 2009), announced that it would put more emphasis on the project and support it with a total of € 250 million.

What strategic significance does Nabucco have for RWE?

Judisch: The pipeline is an important part of our growth strategy because gas is destined to play a more important role in power production in the future – especially when the wind is not blowing. That is why, within the next five years, we want to increase our contracted gas procurement volume from around 40 billion m3 to around 60 billion m3. Nabucco plays an important role in this.
Has the gas conflict between the Ukraine and Russia put the focus back on the Nabucco project or given a positive impetus to its realisation?

Judisch: This conflict has once again shown all of us how important diversity is for gas supply. This wake-up call has been heard and understood by all parties in all countries.

Will Nabucco really make us more independent? Or are we just moving towards a new dependence on politically instable countries?

Judisch: The greater the number of stable gas sources we can open up for the European market, the more these countries – and we too – will have an interest in long-term economic relationships. Multiplicity requires patience, tolerance and the willingness to overcome barriers. My many visits to countries in the Caspian region have convinced me that these countries would like to open themselves to Europe. And by the way, it is a region that offers fantastic chances for German companies that go far beyond the energy sector. Those companies that are already there will confirm this.

What other projects do you see as being useful to achieve diversification – for example the Baltic Sea pipeline, the construction of LNG terminals, opening up new gas fields etc? Which projects is RWE participating in?

Judisch: All of the projects mentioned are useful and necessary. RWE Dea is active around the globe, in the North Sea, in Africa and also in the Caspian region, working at increasing RWE’s gas production. Currently around 15% of our gas procurement comes from our own gas wells and we want to increase that to around 25% by 2013. Liquefied natural gas will become more and more important for Europe and we have a good position here thanks to our partner company Excele-rate Energy. Their special tankers can turn LNG back into natural gas right on board saving the expense of land-based terminals.

Liquefied Natural Gas (LNG) helps to provide increased supply security. It is not a full-fledged replacement for pipeline gas, but it is well suited to cover seasonal peaks in demand and to interconnect markets. Germany needs a way of importing LNG.

RWE is still interested in creating a landing facility for LNG on the German North Sea coast using an independent technical solution. Together with our partner Excelerate, we are technical pioneers. Only we have the possibility for very flexible LNG deliveries, either off-shore via an underwater pipeline or with a “gas port” on land. The “gas port” is much more economical than a traditional re-gasification terminal. Starting in 2012, a German gas port could be used to import around 600,000 m³ of gas per hour to Germany. In comparison a typical German one-family home uses around 2,200 m³ of gas per year for heating and warm water.

Excelerate has proven that this technology works, and it is already in use in Great Britain, Argentina, in two projects in the USA and will soon start in Kuwait. Excelerate currently has five LNG tankers around the world. Each one has enough LNG on board to cover the needs of 40,000 single family homes for an entire year. The fleet is to be expanded to nine ships by 2010. Through the use of suitable technologies, RWE, as Europe’s largest gas dealer, can help LNG achieve rapid growth.
Pipeline Diameter: 56"
Distance: 3,300 km
Investment: ~8 bn €
Transport Capacity: max. 31 bcm/a

Construction of pipeline is expected to begin in 2011 and first operations in 2014

Capacity in phases:
- Phase 1: 8 bcm/a (2014)
- Phase 2: 15.7 bcm/a (2016/17)
- Phase 3: 25 bcm/a (2019/20)

Third Party Access: 50% of the capacity will be marketed via open season process

Shareholders:
- RWE (Germany)
- BOTAS (Turkey)
- MOL (Hungary)
- OMV (Austria)
- Bulgarian Energy Holding (Bulgaria)
- TRANS Gaz (Romania)
“CLEARING EFFICIENTLY HEDGES RISKS”

In the current crisis in the financial markets, important players such as large banks have lost out both in terms of business and reputation. How does this crisis affect the energy wholesale markets? This question is explored by Dr. Peter Kreuzberg, member of the RWE management board responsible for energy trading.

Why has wholesale energy trading shown itself to be relatively resilient to the crisis in the financial markets?

Kreuzberg: A major reason for the crisis in the financial markets is the fact that the banks, in their role as intermediaries for risk transformation, themselves had large quantities of concentrated risks in their books. Some of these risks only had insufficient equity to support them. Large losses in these positions led to a loss of trust in the banks’ ability to function as intermediaries. There is no similar constellation in energy trading. Today, the number of market participants and the degree of diversification on the energy wholesale markets has reached a level where the market can easily deal with the withdrawal of individual participants.

Can the wholesale energy markets do without the banks?

Kreuzberg: No. Financial institutions have played a decisive role in the growth of energy trading. If the entire banking industry were to withdraw from the market, liquidity levels would decrease significantly. However, we don’t expect a long-term outage of these counterparties.

Why has the financial crisis led to the market participants in Germany securing their over-the-counter business through the EEX clearing house?

Kreuzberg: The crisis in the financial markets and the resulting effects on the economy have increased the credit risks in the energy markets. This has resulted in a growing demand for clearing. Clearing is based on the ability of the participants to give collateral to the clearing house for a transaction until such time as the transaction is settled. What we need today are cost reductions for clearing as well as improvements in the institutional design of the wholesale energy trading markets.

What is your opinion of these developments?

Kreuzberg: Positive, because clearing is the most efficient way of reducing credit risks.

Does today’s clearing have the quality the market needs?

Kreuzberg: The clearing rules at all of the established exchanges have their weak points, in particular in that they offer insufficient protection against the possible failure of banks that are active as clearing members.

Clearing is based on the ability of the participants to give the clearing house collateral that covers the changes in value of the transaction. Is this a problem in times of lower liquidity levels?

Kreuzberg: It drives up the cost of avoiding credit risks in an environment where there are significant increases in exactly those risks. This can result in a lack of hedging. The same is true for speculative trading, when the costs associated with the credit risks suddenly appear to be too high. Both of these rob the market of liquidity. To balance this, we need cost reductions for clearing as well as improvements in the institutional design of the wholesale markets.
RWE Supply & Trading GmbH unites RWE’s wholesale trading activities with the long-term gas procurement, structuring and optimisation business. Thus RWE Supply & Trading GmbH is responsible for the economic optimisation of the entire non-regulated gas business of the RWE Group with respect to procurement, transport and storage. The company is engaged in pipeline projects and is intensifying its business relationships with pipeline gas suppliers as well as with LNG suppliers. The RWE Group currently handles a 40 billion cubic metre per annum supply portfolio in Europe, operates gas pipelines of more than 23,000 km in length and gas storage with a capacity of 6.1 billion cubic metres.
European Emission Allowances EUA*

* (up to the end of Nov.: EUA 2008; then EUA 2009)
Gas trading prices for next month delivery in the UK and the Netherlands
Price for next year base load power deliveries
Price for coal futures for next month delivery
Brent oil price futures for next month deliveries