# Pan EurAsian Enterprises, Ltd.

*Energy and Industrial Project Development*

## Update and Brief Analysis

# The Polish Power Market©

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Very little has happened in Poland over the summer, so this document, originally prepared in July, remains basically unchanged. However, see our comments about revisions to the Energy Law at the end.

Also new, there are substantial changes occurring in the Ministry of the State Treasury. Treasury Minister Emil Wąsacz has been replaced by former Polish Senator Andrzej Chronowski; and the under secretary of state, Buczkowski, who was seen to be the main driving force in the "fast track" energy privatization program, has resigned and not been replaced as of this date.

The opening of the Giełda Energii S.A. ("POLPX") for business in June, with real trading activity commencing on 30 June in the day ahead market, marks a "point of no return" for Poland. It marks a step forward into an era of turmoil. Those interested may follow the daily trading activities on their web page (www.polpx.pl). Incidently, we think that the POLPX management should be complimented for its emphasis on transparency and access to information.

**To review:** The Polish electricity generation sector has an installed capacity somewhat in excess of 30,000 megaWatts. This capacity changes seasonally due to the nature of the 4,000 megaWatts or so of installed capacity in district heating plants that are designed mostly so that they can only generate electricity when they generate heat (back-pressure turbines). The heating season runs from about 1 October to 1 April.

Poland's generating sector uses coal as its primary, and almost exclusive, source of fuel. There is generation from both hard coal and brown coal. One power generation facility, Bełchatów, is a mine-mouth lignite-fueled facility that produces a little over 20% of Poland's electricity. Brown coal plants in total provide about 40%. Natural gas, oil, and hydro are negligible sources. There is no nuclear power generation in Poland.

There are 44 power generation companies, some multi-plant companies, plus about 180 industrial power plants that generate electricity. Most of these power generation facilities still remain in the hands of the State, although the process of privatization has accelerated somewhat in the last year.

Privatization of the power sector to date includes:

- Elektrociepłownia[1] Kraków S.A.("Łęg"), controlled now by Electricité de France;
- Elektrociepłownia Warszawskie S.A., controlled now by Vattenfall;
- Elektrownia im. Tadeusza Kościuszki S.A. ("Połaniec"), strategic investor, Tractebel;
- Zespół Elektrowni PAK S.A., strategic investor, Elektrim;
- Zespół Ec. Wybrzeże S.A. ("Gdańsk"), strategic investors are a consortium of Electricité de France and Gaz de France.

Two companies, Kogeneracja and Będzin, are traded on the Warsaw Stock Exchange.

Another privatization, that of Elektrownia Rybnik S.A. is due to close shortly, the investors being a foreign consortium of investors led by NRG. This closing seems to have been delayed by some of the issues discussed in this paper, and is illustrative of the problems of implementing programs of fundamental restructuring and privatization at the same time.

The large Bełchatów mining and power generation complex is currently being studied by an advisor to the Ministry of the State Treasury with the objective of offering shares in the complex (actually two companies, one a coal mining company and the other a power generation company) to strategic investors later in 2000. The departures of Messrs. Wąsacz and Buczkowski from the Ministry of the State Treasury may have the effect of delaying this highly visible and politically contentious privatization.

In the electricity distribution sector (generation and distribution were separated as a policy matter in Poland in 1990), only one privatization is underway at present. That is Górnośląski Zakład Elektroenergetyczny S.A. ("GZE"), the largest electricity distribution company in Poland, located in Gliwice (near Katowice). The leading contenders to buy shares in GZE are Vattenfall, RWE and PSEG Global.

Another privatization is slated to follow on later this year, with the combination of eight distribution companies in the northern tier of Poland (the "Northern Group") currently being prepared for offer by an advisor to the Ministry of the State Treasury. This could also be delayed by the departures from the Ministry.

The coal mining sector remains entirely in the hands of the State. Plans are being formulated for the possible privatization of selected coal mines, but this remains a somewhat distant proposition except for the possible exception of the *Bogdanka* coal mine near Lublin.

The entire sector, from coal mine to bus bar, is characterized by overcapacity and over-employment. This creates a considerable social and political problem in that any attempt to rationalize, reduce costs, or restructure will lead to closures and redundancies. Politically, the government has no appetite for such results, and no resolve to tackle the problems directly.

The situation has been complicated by the "long term contract problem."

**The Long Term Contract Problem:** Starting in about 1994, the Polish Power Grid Company ("PSE"), then the single buyer of electricity from power plants in Poland, undertook a program of signing long term power purchase agreements with power plants in order to encourage modernization and environmental compliance investments. This program formally terminated with the last contracts being signed on 31 December 1999.

PSE entered into long term contracts mainly to support the power companies in their negotiations with banks to provide the funds needed for modernization and environmental compliance investments. We understand that these investments were highly leveraged. Since the power companies had no credit standing of their own, and PSE was highly creditworthy, the long term contracts made it possible for the power companies to borrow.

The long term contracts, some as long as 15 or so years but most around 5 years in term, were signed with about 13,000 megaWatts of capacity on a specific unit-by-unit, project-by-project basis. Thus, it is common to find a large system power plant with part of its capacity under contract to PSE, and the rest of its capacity not under long term contract. Long term contracts

supply somewhat over 65% of all the electricity required by the market at an average price of about 4¢ per kWh. However, some of those contracts are expensive. Recent, published information[2] cites the following prices of electricity under long term contract:

- El. Opole at 190.2 zł/mWh (4.4¢/kWh);
- El. Turów at 181.8 zł/mWh (4.2¢/kWh);
- El. Jaworzno III at 153.9 zł/mWh (3.6¢/kWh);
- "Połaniec" at 162.1 zł/mWh (3.8¢/kWh).

Thus, less than half the generating capacity in Poland is supplying over 65% of the market's needs under a long term contract arrangement with PSE. The remaining more than half of the capacity fights for the scraps. The introduction of the Polish Power Exchange and electricity trading has created a problem for the long term contract setup, and could convert the fight over the scraps into open price warfare. In the short term, that may look beneficial, but in the longer term we believe that is not good public policy.

The Polish energy sector regulator ("URE") has recently suggested a way to "monetize" the long term contracts so that all units can participate in the power exchange's bidding process (or negotiate contracts directly with buyers) without compromising the ability of the power companies to repay the bank loans associated with the long term contract program. This system is called the "System Opłat Kompensacyjnych" or "SOK." Although not in effect as of yet, it is expected that the economic committee of the Council of Ministers (KERM) will approve SOK by the end of July, making it official and binding on the market.

SOK, in effect, assures the power plants (for the units under long term contract only) that if they get paid less in the market for the sale of power than they would have under the contracts, they will get paid (most of) the deficiency by SOK. SOK, in turn, will obtain the funds to make these payments by some kind of levy on the overall power market. Until SOK has been approved by KERM it is not possible for us to be more specific about its workings as it is still being adjusted in response to comments being made by the government, the sector, and the banks.

**What lies ahead?** We see a brutal short term future for the sector, especially the power generation portion of the sector, but also for the coal mines as well. The distribution companies are likely to be less affected, but could suffer considerably from "regulatory lag" if power prices oscillate widely as they did in the early days of power exchange trading in Britain.

Given the overcapacity in the power generation sector, we foresee that the prices of electricity traded on the power exchange will be close to marginal cash cost, and possibly below (as has been the case in the coal mining sector for some years). The first days of trading on the Giełda Energii have yielded prices often below 2¢ per kWh. With the possible exception of Bełchatów, we do not believe that such prices are sustainable in the Polish generating business. Thus, we are seeing the start of a brutal weeding out of the inefficient and the weak; or we should be. But, since the sector is State-owned, and since the State is politically unwilling to see anyone weeded out, what can happen?

In our view, the past may be prologue. The same circumstances have afflicted the coal mines. Some years ago, the coal mines were "freed" to sell coal on a competitive basis. A benchmark ceiling price of $32 per tonne was set by the then Ministry of Industry and Trade (now Ministry of the Economy) to prevent unacceptable rises in the price of electricity to the public. No one

thought the price of coal would go down.

But, given the overcapacity in the industry, the mines started cutting prices in order to maintain production. Cutbacks in production, leading to layoffs, were politically unacceptable so the alternative (price warfare) was preferred. When prices reached marginal cash costs, they kept dropping. The government winked at mines not making their social insurance payments (to the government owned social insurance company, "ZUS"). The result has been the virtual bankruptcy of the country's social insurance system.

We doubt that the government would intervene in any way to prevent this from happening in the power sector. The regulator, URE, would be happy to see power prices tumble since its main political agenda is to keep electricity prices low for the consumer. The Giełda Energii, in a recent press release, is delighted with the low prices that have emerged, citing this as a great success for the concept of trading. The public will be happy. The unions will be happy to see no layoffs in the sector. (See http://www.polpx.pl/ )

Who will lose? First, we expect that those who have invested in the privatization program for system (condensing) plants will get hurt the most. Realization of this possibility may indeed lie behind the delays in the privatization of Rybnik. Second, the government will lose in that the privatization process will either come to a halt, or the prices being paid will tumble.

Third, and most unfortunate, the public will lose. We take for example the specter of "rolling blackouts" in the western part of the United States during this summer's heat waves. The consumer has benefitted there from lowered prices of electricity with the deregulation of the electricity industry. But the low prices have also made it unattractive for investors to consider new capacity. (Almost impossible conditions for siting and permitting power generation facilities also are to blame for this set of circumstances in the U.S.)

Although Poland's power sector has excess capacity at present, considerable investment lies ahead in the immediate future if Poland wishes to join the EU. Poland's accession negotiators have asked for "transition periods" for making such investments. But the EU response is likely to be that Poland has had 10 years to get that house in order, and it has made little progress to date. The EU is not likely to be very sympathetic to such requests.

The bright side is that we see signs that the leaders in the sector are starting to take account of this problem. Perhaps we are in the dark before the dawn, and those who have faith and invest now will be well rewarded later. Our view is that this is probably the case, but it must get a little darker yet before the dawn appears. For the moment, little political attention will be paid to these matters.

This year Poland will elect a new president. That process will increasingly dominate the political landscape, and the plight of the power generation sector is not likely to get much attention. Any attention it does get will likely pander to the unions.

Likewise, next year is the year of parliamentary elections. The same set of dynamics thus extends into next year.

That leaves Poland coming into the year 2002 probably no closer to solving its EU accession, power sector problems than at present. Given the political capital invested in setting 2003 as the year of accession (public target), the (new) government is likely to get to work in a hurry to solve the problems. So, by 2003 (overnight in a capital intensive business like power generation and

distribution) the government will be putting into place conditions to encourage investment in the sector. Those who will have invested at "night time prices" will indeed enjoy the dawn. That's our prediction.

**Energy Law revisions**

The Energy Law of 1997 was revised this Spring, and those changes have now come into force. However, the regulations to implement the changes are still being prepared in general, so the impact of the changes to the Energy Law has not become apparent.

One of the most interesting changes was the addition of "co-generation" to the "must-take" sources of electricity. This is turning out to be a very contentious change, and the regulations to implement it are not yet issued. In general, we understand the basic intent of this change is to protect the viability of the small municipal co-generation plants under the new market conditions. (We previously warned that the small CHPs were threatened by the changed market conditions.)

The new regulations making power produced while generating heat are promised in time to be effective for the heating season starting October 1st this year.

# *Notes and References*

1. The term “elektrociepłownia” refers to a combined heat and power plant (co-generation) whose primary function is the generation of heat for district heating purposes; the term “elektrownia” refers to a fully condensing plant whose primary function is to generate electricity, although some also recover and sell heat for district heating purposes.

2. Polish newspaper *Puls Biznesu* 29 June 2000.