UKRAINE Energy

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Centreneergo (CEEN: HOLD) Dniproenergo (DNEN: BUY) Donbassenergo (DOEN: BUY) Zakhidenergo (ZAEN: BUY) Vostokenergo (VSEN: N/A)



GenCos

Powering Up

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SUMMARY

Double-Digit Sales Growth. After 25%-32% top-line growth reported by GenCos in 2005, we forecast another 35%-40% increase driven by augmented electricity demand and higher tariffs in 2006. The increase in both demand for electricity and tariffs will be due mainly to growth of gas prices in 2006: on the one hand this makes electricity a cheap alternative to gas; on the other hand, it raises GenCos' fuel costs resulting in higher tariffs.

Profits Fall Victim To Regulators' Struggle With Tariff Growth. Rising fuel costs as well as market-distorting experiments and surcharges to producers' tariffs (aimed at filling the state budget) inflated electricity tariffs in mid 2005. To restrain further growth, regulators capped tariffs, which limited GenCos' profits (**ZAEN** was especially affected). With no experiments or budget payments from tariff surcharges in 2006-2007, we expect GenCos' profitability to increase. Profit margins in the industry are expected to be completely restored after a slow down in tariff growth in 2007.

Cost Efficiency, Regulation & Maneuverability Increasingly Determine Load. With expensive gas, those TPPs which are able to efficiently reduce gas in their fuel mix (**VSEN**, **ZAEN**) gain a cost advantage. The load of **VSEN** has been capped by the regulator's attempts to protect state-controlled GenCos (**DOEN**, **DNEN**). Those companies conducting major overhauls of their equipment (**VSEN**, **CEEN** and **DOEN**) are likely to increase their market share in the mid- to long-run.

Export Market Liberalization Opens Door To Additional Profits. ZAEN, with its connections to the UCTE (the European grid), and the efficient private company **VSEN** are the most likely exporters. Once clear rules for exports are adopted, we will be able to estimate the profitability of electricity export operations.

We Re-Iterate Our BUY Recommendations for DNEN (target USD 123, upside 64%: while the drawn out financial recovery process adds risks, the company has high growth potential); **DOEN** (target USD 7.4, upside 41%; efficient management and intensive CapEx projects support our optimism); and **ZAEN** (target USD 33.6, upside 28%: although the company has almost fully realized its short-term revenue growth potential, the completion of a new power unit in the midterm will generate additional value for **ZAEN**, potential direct export contracts could add value to the stock).

We Downgrade Our Recommendation from BUY to **HOLD** for **CEEN** (target USD 0.93, upside 17%) the opportunity for bottom-fishing that existed in January 2006 (when the price declined after a gas-related scare) has expired.

STOCK PRICES

DOEN and **CEEN** have almost fully realized their upsides, while the performance of **DNEN** and **ZAEN** was weaker than we expected.



Stock Growth Since Last Recommendation Update* (As of June 1, 2006)

Source: PFTS, Concorde Capital

* For CEEN, last recommendation update was on Jan 3, 2006, for other GenCos in Sep. 26, 2005

DOEN's strong financials and certainty about its investment program helped the stock to adjust to our target.

The market's revised perception of **CEEN** after over-reacting in late 2005 (**CEEN** lost about 30% of its price, refer to our note from January 3) was the main reason for **CEEN**'s price adjustment to our target.

ZAEN's underperformance was due to low reported margins in 2005, caused by a lag between sharp cost growth and the corresponding tariff adjustment. This decrease in margins is temporary and we expect them to recover by 2007 after electricity tariffs stabilize and the granting of additional surcharges to cover CapEx programs.

The sluggishness of **DNEN**'s stock price is due to the company's filing for bankruptcy – this risk is over-estimated, in our opinion. A mechanism for offsetting debts, stipulated by law, is now in effect. This law safeguards DNEN from bankruptcy for the time being, and decreases the risk of any future bankruptcy proceedings.



Price Multiple Charts (12m Trailing, June 1, 2006): GenCos vs Developed Market Peers

Source: company data, PFTS, Bloomberg

Investors uniformly value GenCos based on sales figures. EBITDA and net income are highly affected by distortions related to regulation issues and asset write offs, and thus in most cases do not reflect real earnings potential.

VALUE DETERMINANTS

In the current segment update we stress the important changes which took place in the energy market in 2005 and early 2006, and analyze how these changes will affect companies' future market positions, stability and cash flows.

Key Issues For Determining The Attractiveness Of The Gencos Sector Are:

- **Growing demand for thermal electricity** in the Ukrainian energy market driven by internal (electricity is treated as a cheaper alternative to gas) and external (export growth) forces.

- Regulation Of The Energy Market:

- Stricter tariff policy on the back of gas price growth
- Additional payments (growing in 2005-2006)

Key Factors Affecting Gencos' Individual Attractiveness Are:

- Access to cheap coal: VSEN
- "Maneuverable" generation capacities: ZAEN, VSEN and DOEN
- Ability to decrease use of gas: **VSEN** and **ZAEN**
- Access to the European electricity market: ZAEN
- Subject to negative discrimination by state regulators: VSEN
- Actively investing in long-term growth: VSEN, DOEN, and CEEN

("Maneuverable" generation capacities means the ability to vary capacity in real time.)

Risks: the threat of bankruptcy due to high debts (**DNEN**, **CEEN**) is decreasing because of the launch of the debt off-setting process

	CEEN	DNEN	DOEN	VSEN	ZAEN
Competitive Advantages:					
Fuel Costs	-	+		+ +	
Maneuverable Units			+	+	+ +
Ability to Decrease Share Of Gas	+	+		+ +	+ +
Other (Dis)Advantages	+		+		+ +
Costs/Tariffs: Profit Stability		+		+	
Repair and Development	+	-	+	+ +	+
Debt/Bankruptcy	-	-			
Overall Rank			+	+ +	
Source: Concorde Capital					

Attractiveness Summary

OPERATING RESULTS

FY 2005

Revenue growth in the electricity sector shot up last year.

Financial Summary			
CEEN	2003	2004	2005
Sales USD mln	346.5	307.0	381.5
EBITDA margin	7.5%	12.6%	10.1%
Net margin	-4.5%	-2.1%	3.1%
DNEN	2003	2004	2005
Sales USD mln	335.3	326.2	408.1
EBITDA margin	11.0%	15.1%	16.1%
Net margin	3.5%	1.6%	1.1%
DOEN	2003	2004	2005
Sales USD mln	203.0	169.1	224.4
EBITDA margin	3.0%	14.6%	18.1%
Net margin	-16.0%	0.1%	4.9%
ZAEN	2003	2004	2005
Sales USD mln	309.6	366.4	481.8
EBITDA margin	10.8%	5.7%	4.8%
Net margin	-0.6%	3.0%	0.8%
Source: company data			

The key factor triggering this growth was the electricity tariff increase for all GenCos. For **DOEN** and **ZAEN** it was also growth in output.





Source: company data, Energobiznes, Concorde Capital calculations * CEEN output decreased in 2005

Tariff growth during 2005 stems from the increase of fuel prices (gas and coal), from regulators' experiments (see page 18 for details), and from targeted surcharges assessed during 2H05.

GenCos' profitability was distorted by the state's regulations:

- regulators did not allow tariffs to grow sufficiently to correspond to cost increases:
 ZAEN was the main victim
- the prescribed additional surcharge inflated **DOEN**'s margins with no corresponding effect in operating cash flow (refer to page 21 for more details)

1Q06

The companies showed unprecedented output growth during the last quarter, caused by extremely cold weather in January-February 2006. Also, it was caused by an increase in internal demand for electricity due to a shift away from gas consumption. The latter factor is expected to be the main driving force for internal electricity demand growth in the midterm.

	2004	2005	2006
DNEN	-18%	-10%	13%
Kryvyi Rih	-17%	20%	24%
Prydniprovsk	6%	-5%	5%
Zaporizhia	-30%	-34%	10%
DOEN	4%	-7%	10%
Starobeshev	33%	6%	10%
Slaviansk	-13%	-21%	11%
ZAEN	-3%	4%	12%
Burshtyn	0%	10%	6%
Dobrotvir	-30%	-2%	7%
Ladyzhyn	12%	-6%	31%
CEEN	-34%	-11%	25%
Uglegorsk	-47%	-18%	11%
Trypilia	-39%	2%	4%
Zmiiv	-12%	-14%	51%
VSEN	-21%	30%	21%
Zuiv	-23%	-6%	2%
Luhansk	-15%	47%	32%
Kurakhov	-23%	15%	35%

1Q Financial Summary:

	Revenue	Crowth you	EBITDA	margin	Net	margin
	USD mln	Growth yoy	1Q06	1Q05	1Q06	1Q05
CEEN	144.5	71%	16.6%	12.0%	6.4%	-1.5%
DNEN	140.6	49%	5.3%	14.1%	-1.8%	4.0%
DOEN	82.0	46%	14.1%	8.9%	2.4%	1.2%
VSEN	213.1	71%	26.9%	19.1%	20.2%	12.7%
ZAEN	167.4	50%	10.8%	5.4%	5.0%	0.4%

Source: company data, Concorde Capital calculations

We forecast the sales increase in the GenCos sector to be 37%-40% yoy in 2006. Again, the main driving force for such growth will be the increase of electricity prices, which is expected to yield a 26%-32% increase of average 2006 tariffs for GenCos.

The increase in electricity demand and tariffs positively affected GenCos' profitability in 1Q06. Still, as the experience of 2005 showed, the first quarter is always more profitable for GenCos, and the regulator tends to decrease the companies' profitability during 2Q-4Q. Thus, we do not expect significant improvements in GenCos profits in 2006.

THE UKRAINIAN ELECTRICITY MARKET

Demand Trends

The volume of electricity generated in Ukraine has been growing over the last three years due to an increase of internal electricity demand and of exports.

Taking into account the increase in gas prices, we expect the start of a switch from gas consumption to electricity consumption in 2006, causing internal electricity demand in Ukraine to be 3.0%-3.5% higher than in 2005. Incremental electricity exports would add another 0.5% to electricity output growth in 2006.

3% 2% 1% 0% -1% 2001 2002 2003 2004 2005 1Q06 2006E

Ukrainian Electricity Output Growth, yoy

Source: State Statistics Committee, Concorde Capital estimates

A Change In The Energy Market Model: Not Yet

The government has repeatedly announced plans to scrap the one-buyer pooling system in favor of a bilateral contract model, in which consumers would be free to sign direct contracts with electricity producers. Such changes would alter the Gencos business models. In this report, however, we do not take these changes into account, because:

- at the moment, there is no clear transition plan, and thus no consequences of the transition can be forecasted
- the timeline of the transition is not clear yet
- the shift demands huge capital expenditures by regulators which is the main obstacle to its fulfillment. **Thus, we do not expect any changes in the foreseeable future**

THE GENCO NICHE

Thermal generators produce expensive electricity, but the energy market is ready to pay a premium to the electricity tariff of TPPs, as they play an important role in the regulation of electric capacity. The ability of TPPs to change (maneuver) their capacity is critical for the maintenance of the whole energy system.



Source: Energorynok, Energobiznes, Concorde Capital calculations

State-run hydro power plants also have maneuverable capacities, so their availability limits the potential size of the GenCo niche. Also, the GenCo niche is open to new entrants, like combined heat and power plants.

New Participants Of The Capacity Tender Market: The Niche Entrants

The premium paid for GenCos' electricity due to participation in capacity regulation attracts other energy producers to the niche. In 2006 two new participants appeared:

- Kievenergo (**KIEN**) operating two of Kyiv's CHPPs with 1.2 GW combined electric capacity.

KIEN's entrance to the capacity tender market creates competition for **CEEN's** Trypillia power plant located outside of Kyiv. However, as our analysis showed, Trypillia TPP already works at its minimum possible capacity, so it has no room to decrease. Moreover, the effect of **KIEN** on the capacity tender market will be minor, as *de facto* the company participated in the regulation of electric capacity even before entering the market.

- Isida LTD operating Myronivka TPP with capacity of 0.26 GW

Expect the crowding out of thermal generation capacity with Isida's arrival, especially for Donbasenergo (**DOEN**) and Vostokenergo (**VSEN**), whose power plants are located near Myronivka TPP. Still, the size of the new entrant on the Donbass energy market suggests that the crowding out effect will be hardly noticeable for other participants.

Installed Capacity Of Donbass* Energy Market Participants, GWh

	Capacity In Donbass	Share In Total Donbass Capacity
CEEN	1.20	15%
DOEN	2.55	32%
VSEN	3.89	49%
Isida	0.26	3%
Source: company da	ata	

* Donetsk and Luhansk regions of Ukraine

Alternative "Capacity Managers": Narrowing GenCos' Niche

A noticeable narrowing of the thermal power niche should be expected if pump storage plants (PSP), designed specially for capacity regulation, are commissioned. In our Donbasenergo (**DOEN**) report of July 4, 2005, we showed how, theoretically, three units of 3 GW at a nuclear power plant and a hydro pump storage plant of 1.2 GW can substitute for three power plants in the capacity regulation process. Still, we do not expect cannibalization in the nearest future, as the construction of PSPs looks like it will be a long and difficult process.

The commissioning of PSPs (1.2 GW at Dnister PSP and 0.3 GW at Tashlyk PSP) are being postponed which is staving off GenCo niche cannibalization. Tashlyk PSP (0.3 GW) is expected to be commissioned in 2006 (0.15 GW in June, and another 0.15 GW in December), but we do not expect it to start operating any earlier than next year. The entrance of new regulating capacity will add about 2.5% of actual capacity to the total regulation market, thus negatively affecting demand for GenCos' electricity starting from 2007.

In 2008-2009 we expect the commissioning of 0.3 GW at Dnister PSP, which would further narrow the GenCo market niche.

We expect an increase of electricity demand on the one hand, and tougher competition between GenCos starting in the midterm on the other hand. The competitiveness issue will become more important in the midterm.

Niche Size: Track Analysis And Forecast

GenCo production leveled off in 2004 due to the commissioning of 2GW of nuclear capacities and shrinking demand for gas-fueled thermal power plants related to the increase in gas tariffs. In 1Q06 demand for GenCo electricity grew 16.7% yoy, reflecting high demand for thermal generation capacities during the extremely cold winter period.

During the second and third quarters of 2006 we expect no significant yoy growth in GenCo electricity demand. Thus we expect 2006 output, on average, to follow the 8% growth trend. In 2007, demand for GenCo electricity will decrease yielding only about 2% demand growth.



Electricity Output Changes yoy

Source: Energobiznes, Concorde Capital estimates

COMPETITION INSIDE THE GENCO NICHE

Mid-Term Competitiveness: Two General Factors

In 2006 the competitiveness pattern for GenCos is going to change. Fortunately, it is becoming relatively easy to determine competitiveness factors. Relying on the assumption that no competition-distorting actions will be implemented by the regulator, we refer to the rules of the wholesale market to study the most important factors affecting the loads of thermal power plants.

The regulator's selection of power units for work on a daily basis (under capacity tender rules) can be simplified to the following algorithm:

Stage 0: "Outside the competition":

a. Selecting power units which must not be stopped because of minimum working hour requirements (for instance, a 300 MW unit has to work 72 hours without stop), or minimum plant requirements (i.e. depending on the weather conditions, there is a minimum number of power units which must work at each plant).

Stage 1: Competition for supplying maneuverable capacity:

- b. Selecting the **least expensive maneuverable** power units for satisfying changeable capacity demand
- c. Among the rest, selecting a group of maneuverable units to supply reserve capacity
- d. The other maneuverable power units participate in the Stage 2 competition

Stage 2: Competition for producing base-load electricity:

e. Selecting the least expensive power units among the rest, for covering the remaining energy deficit (if it exists - in most cases, this is possible only in the winter)

Maneuverability and **cost efficiency** are **two** important **factors determining competitiveness** and the load for energy units. **The minimum number of power units** required for work is **another key factor** which determines a power plant's load.

1. Maneuverability: Quality Competition

We can divide all the power units into two groups participating in two different segments of energy production: maneuverable and base-load.

- Maneuverable units are in high demand on the market, as they are the main suppliers of changeable capacity and capacity reserve. The demand for these capacities does not necessarily imply a high load on maneuverable power units: some of them are serving as capacity reserve, meaning they do not work, but are ready to start any time additional capacity is needed.
- Base-load power units are not in as high demand, as they are treated as an expensive alternative to nuclear power plants. Most purely base-load power plants work at their minimum possible load, and additional base-load units are switched on only in times of high electricity demand, generally only in winter.

2. Minimum Gas Usage: Cost Competition

Gas price growth in 2004, combined with relatively stable coal prices caused the closure of Ukraine's gas-fueled power units, which rely on outdated, inefficient technology. Initially, in 2004-2005, the coal-fueled power units that use a high mix of gas (20%-30%) in their fuel mix remained competitive. But that is changing as gas prices are set to double in 2006: only those able to efficiently reduce the share of gas in their fuel mix can stay competitive. So:



Gas Prices History, UAH/000 cm



Source: NERC

Note how the companies have reacted to gas tariff growth since 2006, increasing coal use to minimize gas consumption.



Coal Consumption By Power Plant, (% in fuel mix)

Source: Energobiznes

* Note: ZAEN was able to significantly increase portions of coal in fuel due to improvement of control over coal quality and more efficient use of gas

The coal/gas price ratio is unlikely to reverse in Ukraine, as coal prices (40-45 USD/mt) are closer to the global level (55-65 USD/mt) than gas prices (0.11 USD/cm in Ukraine compared to global 0.22-0.35 USD/mc).

Because gas-fueled power units are not competitive on the local market, we do not take into account gas-fueled capacities in our analysis.

As we show in appendix 1, anthracite-coal-fueled power units use more gas in their fuel mix than power units fueled by light coal. Thus, in the mid-term, light-coal-fueled power units will be more price-competitive.

Ranking Using Two Factors

Gas price growth since January 2006 makes gas consumption the main determining factor when judging the price competitiveness of energy units. By taking into account only two features of power units, maneuverability and the ability to decrease the use of gas (approximated by the type of coal they use), we can estimate the midterm competitiveness of power plants.

We rank all power capacities by two factors: possibility to change capacity (2 points, 0 otherwise) and the type of coal they use (1 if light coal i.e. potential to use less gas, 0 if anthracite coal, i.e. more gas-intensive).

	Total Capacity* MW	Maneuverable	Rank	Antracite Coal	Rank	Total Rank
Uglegorsk	1200	n	0	n	1	1
Trypillia	1200	У	2	У	0	2
Zmiiv 200	1050	у	2	У	0	2
Zmiiv 300	1100	n	0	У	0	0
CEEN	4550		1.0		0.3	1.3
Kryviy Rih	2820	У	2	У	0	2
Prydniprovsk 150	600	У	2	У	0	2
Prydniprovsk 300	1140	n	0	У	0	0
Zaporizhia	1200	n	0	n	1	1
DNEN	5760		1.2		0.2	1.4
Slaviansk	800	У	2	У	0	2
Starobeshev	1750	У	2	У	0	2
DOEN	2550		2		0.0	2.0
Zuiv	1200	n	0	n	1	1
Kurakhov	1460	У	2	n	1	3
Luhansk	1225	У	2	У	0	2
VSEN	3885		1.4		0.7	2.1
Burshtyn	2400	У	2	n	1	3
Dobrotvir	500	У	2	n	1	3
Ladyzhyn	1800	n	0	n	1	1
ZAEN	4700		1.2		1.0	2.2

Mid-Term Competitiveness Ranking: Analyzing Two Factors

Source: company data, Concorde Capital

* only coal-fueled capacity is taken into account

The best positioned companies in terms of maneuverability are **DOEN** and **VSEN**.

The best companies in terms of potential to reduce gas use are ZAEN and VSEN. Note that VSEN has almost not used gas at its power plants since 2005. As for ZAEN, this company's gas reduction potential is limited by the special working mode of its Burshtyn and Dobrovtvir TPPs, which demand high maneuverability, and thus higher use of gas.

Note that the factors described above determine only mid-term market position sustainability, as in the long-term all the companies are expected to change their technologies in order to efficiently minimize gas consumption.

Note also that the two factors are not enough to forecast future demand for electricity produced at the power plants in this study. Below we introduce additional factors, such as exemption from competition, and cost advantages that are not explained by the two factors described above.

Another Important Issue: Exemption From Competition

Regardless of a power plant's competitiveness, it can be utilized if:

The power plant works according to a special schedule. Some examples of these power plants are the Burshtyn and Dobrotvir TPPs of **ZAEN**, which supply electricity and reserve capacity to UCTE countries, and therefore do not work according to Ukrainian market rules.

The minimum number of power units which must be in operation is close to the power plant's total number of units. Slaviansk TPP (DOEN) fully enjoys this factor, as it has only one working power unit. Refer also to appendix 2 to asses how many power units work because of the minimum requirement set.

2005 GenCos' Competition

Analysis of competition (refer to appendix 2) between GenCos in 2005 showed that a series of power plants operated most of the year with the minimum set of power units, which means these power plants were not competitive:

Trypillia TPP (**CEEN**) Uglegorsk TPP (**CEEN**) Ladyzhyn TPP (**ZAEN**) Zaporizhia TPP (**DNEN**)

Also, three power plants were loaded due to their exclusive features:

Burshtyn TPP, Dobrotvir TPP (**ZAEN**) – their load is guaranteed by electricity and capacity demand from the UCTE (these power plants *de facto* do not participate in capacity tenders).

Slaviansk TPP (**DOEN**) – this power plant has only one working unit, which must not be shut down.

Other power plants were competitive in the capacity tender:

Zmiiv TPP (CEEN) - it finished full-scale reconstruction of a power unit in 2005

Starobeshev TPP (DOEN) - operates maneuverable power units

Kryviy Rih TPP, Prydniprovsk TPP (**DNEN**) – are the most fuel-efficient power plants with maneuverable units

Luhansk TPP, Zuiv TPP, Kurakhov TPP (**VSEN**) – the most cost-efficient power plants. They use the cheapest coal of the highest quality, supplied from coal mines controlled by the Donbass Fuel and Energy Company.

During the summer-fall of 2005, the regulator introduced limits on the amount of energy provided by power units fueled with light coal, which artificially limited the load of **VSEN**'s power plants to the benefit of **DNEN**, **CEEN** and **DOEN**. The decision to limit the work of power plants which use light coal was approved by the Council Of The Wholesale Market - the majority of votes for the move came from representatives of state-controlled GenCos who are unhappy with **VSEN**'s efficiency capping their loads.

We do not expect these limiting regulations to continue in 2006, as they cause an undesirable increase of electricity tariffs (refer to pages 17-18).

Output Forecast

As before, the best-looking company is Vostokenergo (VSEN), which is part of the Donbass Fuel And Energy Company (DFEC), a vertically integrated energy structure with its own coal mines and energy distribution companies. Cheap coal and the good operating condition of its power plants make the company the most cost efficient, while access to private capital for modernization makes its future stable. Still, the company suffers from discrimination by the state, which works to protect the state-controlled GenCos. VSEN is not traded, but the owners of DFEC are currently discussing plans for an IPO, perhaps in 2007-2008.

VSEN's main competitor on the regional market, **DOEN**, is protected by the state, which, for the time being, guarantees the company's high capacity utilization (to the determent of **VSEN**). Inefficient fuel-burning technology is among the company's weak sides, but this is going to change, as **DOEN** is the most efficient GenCo in defending its reconstruction projects and obtaining additional payments for CapEx financing. Together with finishing the construction of unit #4 at Starobeshev TPP, **DOEN** is ready to start construction of a new unit at Slaviansk TPP to significantly enhance the company's overall fuel efficiency. On the downside for **DOEN**, the commissioning of a new energy unit at Starobeshev TPP has been postponed, and is not expected to go on line until 2008.

ZAEN is still taking full advantage of its exclusive exporters' status. The company's capacities are almost fully utilized, which makes ZAEN the least promising company in terms of output growth in the short-term. In addition, the high costs of electricity production makes the company highly dependent on additional surcharges to its tariff (maneuverability and capacity surcharges) stipulated by the regulator. In the midterm (2009E) **ZAEN** is going to finish construction of a new power unit of 225 MW.

CEEN and DNEN are the most problematic companies, with the lowest levels of equipment utilization and the highest indebtedness. Still, we expect the debt problem to go away after the debt redemption process in the energy sector finishes. The process started in late 2005. The companies' low capacity utilization gives them the greatest potential for output growth.

CEEN has a good chance to increase its load in the future, as now it is implementing an intensive modernization program: it has finished reconstruction of unit #8 at Zmiiv TPP in 2005, and is going to finish similar reconstruction at another Zmiiv unit in 2007-2009 (refer to page 24 for more details).

DNEN's growth perspective is related to further time periods (2009-2010), as its reconstruction plans suggest.

	CEEN	DNEN	DOEN	VSEN	ZAEN
Short-term (2006-2007)	High	Medium	Medium	High	Medium
Mid-term (2008-2009)	High	Medium	High	Medium	High
Long-term (2009-)	Medium	High	High	Medium	High
Courses Conserve Conital					

Output Growth Timeline

Source: Concorde Capita

Dutput Growth Estimates						
	2005	2006F	2007F	2008F		
Uglegorsk (300)*	-8%	3%	1%	1%		
Trypillia (300)	-1%	0%	0%	0%		
Zmiiv (200)	8%	18%	2%	1%		
Zmiiv (300)	-2%	20%	2%	1%		
CEEN, TWh	12.22	13.28	13.39	13.46		
Kryviy Rih (300)	12%	13%	3%	0%		
Prydniprovsk (150)	9%	5%	1%	1%		
Prydniprovsk (300)	1%	-1%	1%	-1%		
Zaporizhia (300)	-4%	2%	1%	1%		
DNEN, TWh	13.23	14.03	14.25	14.32		
Slaviansk (800)	-6%	6%	3%	1%		
Starobeshev (200)	18%	8%	8%	1%		
DOEN, TWh	7.30	7.83	8.45	8.49		
Zuiv (300)	2%	4%	1%	0%		
Kurakhov (200)	6%	23%	2%	1%		
Luhansk (200)	2%	18%	1%	0%		
VSEN, TWh	13.95	16.85	17.02	17.12		
Burshtyn (200)	8%	3%	1%	0%		
Dobrotvir (150)	10%	6%	3%	5%		
Ladyzhyn (300)	-1%	5%	0%	0%		
ZAEN, TWh	14.85	15.38	15.59	15.76		

Source: company data, Concorde Capital estimates * Installed capacity of units at power plants are in brackets

TARIFF POLICY

Tariff Fluctuations

During 2005 the price at which TPPs sold their electricity varied significantly, with the price peaking in the summer months. Note that the price of electricity in 2005 did not correlate much with the price of fuel used by TPPs (coal and gas).

TPPs' Tariff (UAH/MWh) vs Fuel Prices



Source: NERC, Ukrenergo, Concorde Capital calculations

We believe the poor correlation of 2005 tariffs with fuel tariffs was mainly due to the fact that electricity prices were determined at the discretion of the regulator, who manipulated the capacity and maneuverability surcharges for the power plants, and started other "experiments" (see the next section), which affected prices.

Components Of GenCos' Total Tariff

The final price set by producers consists of the net electricity price and surcharges.



Source: NERC, Ukrenergo, Concorde Capital calculation

The net electricity tariff is the price at which GenCos sell electricity to the Wholesale Market Operator. Currently it is defined on an hourly basis, as the price of the most expensive producer (the so-called marginal price of the system, or MPS). It covers mainly variable costs for electricity producers.

Two integral surcharges which can be treated as a premium for GenCos' participation in the capacity tender market are:

- The maneuverability surcharge (paid hourly for the MWs of capacity changed during the working day)
- Working capacity surcharge (paid hourly, between 7 am and 11 pm, on each MW of working capacity)

Both these surcharges increased final price in 2005, on average, by 30%

In addition to the integral surcharges, in 2005 the final electricity tariff was affected by additional, targeted surcharges aimed at filling state coffers or repaying CapEx loans (see page 21 for more details).

What Determined Net Tariffs (MPS)?

As the net tariff reflects variable costs (of the most expensive producer), the net tariff (or MPS) should correlate with fuel prices. But, again, we do not see a strong relationship between coal and gas tariffs and MPS in 2005. This is because the influence of regulators was a stronger determinant of prices than input costs.

Three main regulatory actions affected MPS:

- Limits on the utilization of light-coal power units (Jun 1 Sep 31) this kept the most cost-efficient power units from working. Naturally, less cost-efficient power units began operating, and the price of the most expensive power units at work (MPS) rose significantly in the summer 2005. After work limitations were cancelled, MPS saw a slight decrease.
- The introduction of minimum pricing (the lesser of the applied-for price and MPS), instead of MPS (since June 16 2005). As a result, all the power units tended to apply for higher prices, shifting MPS upward. (See analysis of change in pricing policy on MPS in appendix 3). This decision was revoked in March 2006 and MPS pricing was restored.
- Caps on MPS (to "manually" restrain electricity prices):

Sep 26 – Oct 2: 121 UAH/MWh Oct 18 – Oct 26: 145 UAH/MWh Oct 27 – Nov 22: 184 UAH/MWh Nov 23 – Nov 27: 165 UAH/MWh Nov 28 – Nov 29: 120 UAH/MWh Nov 30 – Jan 10, 2006: 145 UAH/MWh

Note that by March 2006, all the regulatory actions described above were cancelled.



Effects Of Inputs And Regulation On Net Purchase Price (MPS*)

Source: NERC, Ukrenergo, Concorde Capital calculations

* Even though the pricing at MPS was cancelled in June 2005, we use MPS as an estimate of net purchase price: as we show in appendix 3, with cancellation of MPS pricing, all the GenCos' applied-for prices converge to MPS

These three regulatory norms were introduced for the first time in 2005. Such "experiments" in the wholesale market made the electricity tariffs of TPPs sensitive to regulator decisions, not to the input prices.

Limits on the utilization of light-coal plants are unlikely to return in the future, as their main outcome was undesirable (for the regulator) tariff growth.

Changes in the pricing model had even more undesirable outcomes: tariff growth and a relative decrease in GenCos' profitability, or what we called λ -inefficiency effect (see appendix 3 for details). We do not expect any repeat of this experiment.

Caps on the marginal price were efficient in decreasing GenCos' tariffs. Thus we do expect the NERC to return to such practices if there is sharp growth of electricity tariffs in the short-term.

What Determined Integral Surcharges?

The amount of integral surcharges depends mainly on the Maneuverability and Capacity multipliers set by the NERC.



Surcharges To Purchase Price vs NERC Multipliers

The NERC reduced multipliers significantly in September-December 2005 in order to cope with the significant TPP tariff growth that happened in the summer.

Playing with surcharge multipliers was and will remain the most popular regulatory measure to cope with tariff fluctuations.

As the NERC's primary short-term goal is to keep electricity tariffs as low as possible (or at least not to allow a rapid increase), GenCos' margins are inversely related to fuel price growth in the short term.

We expect a 29% increase in gas tariffs for industrial consumers in 2H06 (refer to our Gas report of June 5 2006) and 10-15% growth in coal prices. TPPs' electricity tariffs will continue their upward swing, and we expect the NERC to impose short-term price caps, which will hurt profits for GenCos in 2006.

Source: NERC, Ukrenergo, Concorde Capital calculations

Case Study: ZAEN Profitability And Integral Surcharges

ZAEN's monthly profitability from electricity production has a high correlation with the maneuverability multiplier for Burshtyn TPP (Burshtyn TPP accounts for 2/3 of **ZAEN**'s sales).





Source: NERC, Zakhidenergo, Concorde Capital estimates

Due to high production costs, **ZAEN** depends on regulators' decisions on surcharge multipliers. Because integral surcharges decrease in times of net electricity tariff growth, so does **ZAEN**'s profitability. Thus, taking into account even higher tariff growth in 2006 compared to 2005, we do not expect improvements in **ZAEN**'s profitability this year.

With tariff stabilization in 2007, we expect an upward adjustment in **ZAEN**'s bottom line.

The relationship between profitability and surcharge multipliers is less significant for other GenCos: their production costs are lower than **ZAEN**'s, making integral surcharges less critical for them.

Target Surcharges To GenCos' Tariffs: Filling State Coffers

Target payments (surcharges) are the additional payments to GenCos which the companies have to direct towards pre-determined (target) spending. All these additional payments were efficiently realized at a cost to energy consumers, via surcharges to electricity tariffs. In 2005, we observed two types of target surcharges to GenCos' tariffs:

- CapEx (Investment) surcharges: to repay debts on CapEx projects. First introduced in March 2002 for **DOEN**, they started working also for **CEEN** in 2005.
- Budget surcharges: this money was used to pay off GenCos' debts to the state budget: dividend payments from past years, tax arrears and debts to the state budget. We do not expect these payments to repeat in the future. This type of additional surcharge was first introduced in 2005.



Additional Payments As % Of Sales, 2005

Source: company data, NERC, Concorde Capital calculations

* Budget surcharges are surcharges to electricity tariff aimed to fill the state budget

Note that by implementing additional surcharges the state was mainly aiming to fill the budget at the expense of electricity consumers. Indirectly, GenCos also suffered: because budget-related surcharges add to total tariff growth, the regulator tried to cap this growth by cutting GenCo tariffs which were not related to direct budget payments. Occasionally, this positively affected **DOEN**'s FY 2005 net income.

Case Study: DOEN's high profits in 2005 are connected to the company obtaining an additional surcharge for covering an earlier debt to the budget for a coal supply contract. As the payment for coal was reported as costs on the previous year's income statement, the company did not list it as an expense payment in 2005 (it was only reflected in the balance sheet: decrease of payables to budget). As a result, the surcharge revenues directed for coal purchases raised the company's 2005 net income. Operating cash flow, however, did not increase.

Starting in 2006, we expect a shift from budget surcharges (useless for GenCos) to investment surcharges in the GenCos' tariffs. According to current regulatory acts, **DOEN** will obtain USD 16 mln and **CEEN** will obtain USD 7.3 mln via additional surcharges for the financing of reconstruction projects this year. We also expect **ZAEN** to obtain additional payments to cover its reconstruction projects at Burshtyn TPP.

In the midterm, the total profitability of the GenCos will be more sensitive to their costs than to regulation.

Tariff Growth Forecast

Assuming no more regulators' experiments which tend to artificially increase TPP's tariffs, we expect the main determinants for thermal electricity tariffs will be fuel prices: gas (expected tariff growth 85% yoy) and coal (15% growth yoy).

GenCos' tariffs are expected to adjust by 95% to fuel price growth in 2006, which would yield 26%-30% growth in GenCos' annual 2006 tariffs.



Average TPPs' Tariffs, UAH/MWh

Source: Energorynok, Concorde Capital forecast

To sum up, GenCos sales are forecasted to increase 35%-40% yoy in 2006.

Revenue Growth Forecast, yoy

	Output G	Output Growth		rowth	Sales Growth	
	2006	2007	2006	2007	2006	2007
CEEN	8.7%	0.9%	29.0%	8.6%	40.2%	9.6%
DNEN	6.0%	1.6%	29.5%	8.9%	37.3%	10.7%
DOEN	7.3%	1.1%	26.2%	8.5%	35.5%	9.8%
ZAEN	4.0%	0.9%	31.9%	8.4%	37.2%	9.4%

Source: company data, Energorynok, Concorde Capital estimates

THE DEBT ISSUE: WAITING FOR "MEASURES"

The law "On measures directed to ensure the stable work of fuel and energy enterprises," adopted a year ago, marked the beginning of the government's work towards solving the debt problem in the energy sector.

Currently the energy market participants are in the first stage of solving problem debts, which is aimed at reconciling companies' mutual indebtedness. Still, despite all the companies' claims to be ready to participate in debt reconciliation, less than 1% of the debt has been reconciled. The reconciliation process was scheduled to finish in mid-August, but policy makers are planning to extend the deadline to the end of the year. During the first stage, no bankruptcy proceedings are allowed.

The second stage stipulated by "Measures..." (expected to start in 2007) is the paying off of all debt leftover after the first stage. The debt is going to be paid off at the expense of electricity consumers through tariff surcharges. The procedure and duration of the second stage is not clear at the moment, which means some risks remain for the companies with large accumulated debts.

We can divide GenCos' into two groups by their total receivables:

- **DNEN** and **DOEN** have re-structured most of their accumulated receivables into bad debt provisions in order to more accurately reflect the likelihood of collection. The creation of these reserves has negatively affected the companies' profits over the last few years.
- CEEN and ZAEN have not created bad debt reserves, which leads us to question the quality of their reported receivables. While for ZAEN the problem does not look so bad, as the company's receivables are small, CEEN has larger receivables some of which might need to be written off, distorting its reported net income in future periods. CEEN appears to be hoping that the law "On measures..." will help it get back all its reported A/R, which does not look realistic.



Debt Payable Accounts, USD min



Source: company data

Likewise we can divide GenCos into two groups by their total debts:

- **ZAEN** and **DOEN** have a relatively low amount of short-term payables (A/P), as they restructured most of their arrears as "other long-term debt" (LT debt). These companies postponed their debt repayment and are beyond the threat of bankruptcy.
- **DNEN** and **CEEN** have high amounts of payables and are on the edge of bankruptcy. **DNEN** is in the process of financial recovery, while **CEEN** has been attacked by bankruptcy lawsuits.

DOEN and **ZAEN** are likely to solve their debt problem faster, as their payables are comparable to net accounts receivable. **CEEN**'s and **DNEN**'s larger debt problems are likely to be solved more slowly.

We account for the risks to $\ensuremath{\text{CEEN}}$ and $\ensuremath{\text{DNEN}}$ by applying a higher required return on their equity in our valuation model.

CAPITAL EXPENDITURES: LESS THAN EXPECTED

CapEx Directions

Three potential types of capacity modernization are being considered on Ukraine's thermal electricity market:

1) Overhaul: cost 20-90 USD/kW

This is what most GenCos are doing currently. It does not involve any significant changes in technology, only minor upgrades of some components and installation of new purifying systems. It is the cheapest and fastest way to modernize equipment and prolong its working life.

Experience: Burshtyn TPP (**ZAEN**), Prydniprovsk TPP (**DNEN**), Trypillia TPP (**CEEN**), Luhansk TPP (**VSEN**)

Advantages: low costs which can be carried by the company independently; improvements in stability and efficiency

Key disadvantage: improvements are minor

The next two CapEx options are new to Ukraine, but the successful completion of pilot projects will serve as a benchmark for further, deeper, modernization.

2) Technology Upgrade: cost 200-290 USD/kW

It is expected that this option will be used for most large power units (300+ MW). It involves introducing new, efficient technologies, full modernization of the basic parts of energy units (turbines, boilers), but without complete equipment replacement.

Experience: Unit #8 at Zmiiv TPP (CEEN)

Up Next: Zmiiv TPP unit #9 (**CEEN**), Uglegorsk TPP (**CEEN**), Ladyzhyn TPP (**ZAEN**), Zaporizhia TPP (**DNEN**)

Advantages: allows the introduction of new technologies and significant prolongation of the power unit's life; significantly decreases operating costs and output growth

Challenges: large capital requirements, which most companies can not handle independently

3) Full Reconstruction: cost 500-600 USD/kW

This option makes more sense for mid-sized power units (100-225 MW). It involves essentially constructing a brand new power unit on an existing site.

Experience: Unit #4 at Starobeshev TPP (DOEN)

Up Next: unit #1 at Slaviansk TPP (**DOEN**), Dobrotvir TPP (**ZAEN**), Luhansk TPP (**VSEN**), Prydniprovsk TPP (**DNEN**)

Advantages: state of the art technologies, significant cost improvements

Challenges: huge capital requirements; lack of experience in dealing with new technologies

CapEx Financing

In their investment decisions, state-controlled GenCos make less efforts to attract loans, and hope for state support to fund their investment projects. According to the government's decree #648-p of 2004, the companies are scheduled to receive USD 1 bln for reconstruction projects in 2005-2010. The source of capital was expected to be special surcharges to GenCos' electricity tariffs.

Due to the low profitability of the energy sector, modernization requires a long payback period, but debt problems keep GenCos from receiving long-term loans. At the moment, *only two* large-scale CapEx projects have been implemented in Ukraine (described on the previous page), financed by the EBRD and IBRD with guarantees from the state.

With the completion of new projects and the solving of GenCos' debt problems in the mid to long term, we can expect an increase of debt financing for CapEx projects. Still, in the short term, GenCos will continue to count on state programs for modernization. As we noted, **DOEN** and **CEEN** are most successful in modernization through surcharge programs.

According to an order from the Ministry of Fuel and Energy, issued on May 24, GenCos will be eligible to cover up to 80% of their CapEx from additional surcharges.

CapEx Plans Were Too Optimistic

In 2005 GenCos obtained a total of USD 99 mln in additional surcharge payments, but only USD 18 mln were allocated to financing CapEx programs. The rest went to the state budget and the partial cleaning of GenCos' debt accounts.

The table below shows that the CapEx surcharge program is currently working only for two companies. In only one company's case, **DOEN**, the program is working according to plan.

	2005	2006	2007	2008	2009	2010
CEEN (Gov't)	18 (7)*	68 <mark>(7)</mark>	68	113	113	113
(Concorde)		64	70	74	80	80
DNEN (Gov't)	8	14	14	37	37	37
(Concorde)		14	14	37	37	37
DOEN (Gov't)	11 (11)	16 <mark>(16)</mark>	16	27	27	27
(Concorde)		16	16	24	27	27
ZAEN (Gov't)	9	73	73	63	51	40
(Concorde)		55	67	63	51	38

Planned CapEx Payments For GenCos (USD mln)

Source: Cabinet of Ministers, NERC, Concorde Capital estimates

* Red numbers in brackets represent actual payments (2005) and approved payments (for 2006)

We expect **ZAEN** to obtain additional payments in 2006 to compensate for the cost of modernizing its power unit at Burshtyn TPP. The project has just recently been approved by the regulator.

Additionally, we do not expect the CapEx surcharge program stipulated by the government to be fully implemented, due to changes in the industry since the adoption of the program:

- The program was adopted when gas tariffs were not expected to grow so fast. Had fuel costs been more stable, the increase of the total electricity tariff due to additional surcharges would not have been very high. Now, after a significant spike in fuel costs, regulators will be searching for a way to cap the tariffs. The first candidate for downside revision in this case is surcharges for CapEx programs.
- In 2005 we observed what is called "the crowding out effect": additional surcharges became a source of revenue for the budget rather than a program to help GenCos modernize equipment.
- By itself, the program looked unrealistic, as it left most of the surcharge burden until the last period of the program (refer also to our May 2005 report on GenCos).

We downgrade our expectations about inflows from surcharges for ZAEN and CEEN from our last forecast, as they are unlikely to be fully realized due to the large size of planned inflows.

We expect DOEN's plan to be fulfilled, as it has a good track record with the program and its future figures are realistic.

We also expect DNEN's plan to be fulfilled starting from 2007, as its figures look affordable enough to be implemented.

EXPORT LIBERALIZATION: STILL UNCERTAIN

The monopoly position of Ukrinternergo in exporting Ukrainian electricity was challenged for the first time in 2005, when the nuclear generation company, Energoatom, started its own export business. With the emergence of a conflict between Ukrinternergo and its owner, the National Energy Company of Ukraine (NC ECU), in early 2006, the NC ECU and other regulators started thinking about further de-monopolization of electricity exports.

According to a draft regulation put out by the NC ECU, any company with a license to supply electricity at an unregulated tariff (electricity producers, small electricity traders) could obtain the right to export electricity, on condition that they offer to pay more to the wholesale market than Ukrinternergo pays. However, to actually export electricity, any company would still need to get access to export capacities, which are currently occupied by Ukrintenergo.

This new concept means that any GenCo could become an exporter of electricity if:

- It signs a better export contract, at a higher export price (competitiveness factor)
- It can convince either from Ukrintenergo or the Ministry of Fuel and Energy to allocate export capacity. This is a mostly political factor.

Two companies look likely to meet the first condition:

- Zakhidenergo, as it *de facto* already is exporting electricity, and thus already has relationships with potential customers
- Vostokenergo, as this is a private company with a skillful and efficient management group

The second condition is more likely to be met by Zakhidenergo, as the NC ECU, the main initiator of electricity export liberalization and ZAEN's main shareholder, will help the company to reserve capacity in the export grid.

Private companies such as Vostokenergo are less likely to be granted exporting capacity, unless transparent tender rules for exporting capacity are set. The latter is not likely in the short run, but will be something to watch for in the midterm.

Is Exporting Electricity A Profitable Business?

The experience of Ukraine's monopoly exporter says no, but Ukrinterenergo's low margins are connected to its monopoly profile and status as a state-controlled company which reduces incentives to seek profitable export contracts.

Ukrinterenergo Margins

	2003	2004	2005
EBITDA margin	3.9%	-0.1%	0.4%
Net margin	2.9%	-0.9%	0.1%
Country of the Country of the	I and a standard and a		

Source: company data, Concorde Capital calculations

Export market liberalization would increase export prices for electricity, but it is hard to say whether it would boost exporters' profitability: that would depend on **who captures the margins** from export price growth:

- If electricity is sold from the wholesale market for export by tender, competition between potential exporters would lead to an increase in the purchase price of electricity up to the level of export prices, reducing export profits.
- If the price of electricity exported is fixed, exporters can capitalize on the difference between the purchase price and export price.

We will be able to estimate export profitability once the state discloses the new rules for electricity exports.

VALUATION

Peer Multiples

Previously we benchmarked Ukrainian GenCos to Russian thermal power plants. With the current restructuring in the Russian electricity sector and the creation of a new generation of companies in Russia which are not yet traded, we are temporarily unable to use Russian GenCo multiples in valuing Ukrainian power generators. In 2007, when the reform is scheduled to finish, Russian wholesale generation companies will be a perfect benchmark for Ukrainian companies' relative valuation.

As Ukraine has said its strategy is to integrate into the UCTE system, we took companies working in the UCTE as the closest available GenCo peers.

GenCos Summary, USD mIn

		Sales		EBITDA		Net Income		MCap	EV
		05	06E	05	06E	05	06E		
Centrenergo	CEEN	381.5	550.0	38.4	57.0	11.9	13.9	288.9	387.5
Dniproenergo	DNEN	408.1	566.0	65.8	65.1	4.7	18.9	294.9	352.5
Donbasenergo	DOEN	224.4	307.0	40.6	38.5	11.1	7.6	124.1	199.6
Zakhidenergo	ZAEN	481.8	668.0	23.2	30.6	4.1	5.1	339.3	400.5

Source: Bloomberg, company data, Concorde Capital estimates

UCTE Peers Summary, USD min

	S	ales	EB	ITDA	Net I	ncome	MCap	EV
	05	06E	05	06E	05	06E		
CEZ	5,220	6,549	2,034	2,629	895	1,152	21,532	22,862
EdF	63,435	69,507	14,838	18,471	4,029	4,682	107,763	142,318
EnBW	13,381	14,764	2,432	2,390	648	1,083	15,550	19,990
RWE	50,347	53,847	10,572	11,652	2,772	3,411	58,801	71,296
Enel	40,101	41,760	9,265	10,289	4,840	3,631	52,670	68,131
Endesa	22,651	24,058	n/a	8,069	982	2,605	35,014	62,393

Source: Bloomberg, company data, Concorde Capital estimates

GenCos are traded with a discount to UCTE peers by EV/S. This discount seems to be justified because of the lower profitability of Ukrainian generation companies:



Source: Bloomberg, company data, Concorde Capital estimates

All GenCos except **ZAEN** traded at a discount to peers' EV/EBITDA. P/E multiples yield no upside potential. Note that in times of substantial cost growth, tariffs and bottom lines are slow to adjust properly to fuel cost growth, so the 2005 and 2006 bottom lines for GenCos do not reflect their midterm earning potential.





Source: Bloomberg, company data, Concorde Capital estimates

To account for the midterm earning power of GenCos, we use a DCF model.

DCF Models

Basic Assumptions:





Revenue growth



Output Growth



EBITDA Margins



Source: company data, Concorde Capital forecasts

Centrenergo

Valuation date 20-Jun-06

For the purposes of fore	casting local	currency is	s used (mlr	ר)						
	2006E	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E
EBITDA	279	383	451	497	500	489	515	520	485	499
EBIT	158	263	328	369	368	356	381	386	350	365
Tax Rate	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Taxed EBIT	119	197	246	277	276	267	285	290	263	274
Plus D&A	120	120	123	128	132	133	134	134	134	134
Less CapEx	(104)	(145)	(190)	(211)	(197)	(188)	(155)	(140)	(134)	(134)
Less change in OWC	760	(26)	(21)	(10)	(23)	(18)	(17)	(12)	(15)	(15)
FCFF	-	147	158	184	188	194	248	272	248	258
WACC	19.6%	16.9%	15.0%	13.1%	10.8%	9.6%	9.0%	8.6%	8.6%	8.7%
WACC To Perpetuity										12%
Terminal Value										2,636
Firm Value		2,203			F	Portion Due	e To TV			49.7%
Less Net Debt		(521)			I	Perpetuity (Growth Rat	e		2.0%
Equity Value		1,683]	Implied exi	t EBITDA n	nultiple		5.3 x
DCF-based 12m price		0.91								
Current stock price		0.78								
Upside		17%								

	In	nplied Sha	ire Price, l	JSD		
WACC		Perp	etuity Gro	wth Rate		
	1.0%	1.5%	2.0%	2.5%	3.0%	
-1.5%	0.96	0.99	1.03	1.07	1.11	
-1.0%	0.93	0.96	0.99	1.03	1.07	
-0.5%	0.89	0.92	0.95	0.99	1.03	
+0.0%	0.86	0.89	0.92	0.95	0.99	
+0.5%	0.83	0.86	0.89	0.92	0.95	
+1.0%	0.80	0.82	0.85	0.88	0.92	
+1.5%	0.77	0.79	0.82	0.85	0.89	

Dniproenergo

Valuation date 20-Jun-06

For the purposes of fore	casting local	currency is	s used (mlı	ר)						
	2006E	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E
EBITDA	329	434	483	554	586	618	627	640	603	621
EBIT	170	275	324	389	415	447	454	469	434	454
Tax Rate	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Taxed EBIT	128	207	243	292	312	335	340	352	325	341
Plus D&A	158	158	159	165	170	171	173	172	169	167
Less CapEx	(146)	(201)	(255)	(289)	(299)	(275)	(245)	(195)	(168)	(168)
Less change in OWC	(14)	(46)	(16)	(14)	(28)	(38)	(4)	1	(5)	(5)
FCFF	-	118	130	153	155	194	264	330	321	335
WACC	16.8%	14.5%	13.1%	11.3%	9.9%	8.7%	7.8%	7.7%	7.8%	8.1%
WACC To Perpetuity										12%
Terminal Value										3,416
Firm Value		2,750			F	Portion Due	e To TV			56.7%
Less Net Debt		(328)			F	Perpetuity (Growth Rat	e		2.0%
Equity Value		2,422]	Implied exi	t EBITDA n	nultiple		5.5 x
DCF-based 12m price		123.4								
Current stock price		75.24								
Upside		64%								

	In	nplied Sha	re Price, l	JSD		
WACC		Perp	etuity Gro	wth Rate		
	1.0%	1.5%	2.0%	2.5%	3.0%	
-1.5%	128.8	133.0	137.7	142.9	148.6	
-1.0%	124.2	128.3	132.7	137.7	143.2	
-0.5%	119.8	123.7	128.0	132.8	138.1	
+0.0%	115.5	119.3	123.4	128.0	133.1	
+0.5%	111.4	115.1	119.1	123.5	128.4	
+1.0%	107.5	111.0	114.9	119.1	123.8	
+1.5%	103.8	107.1	110.8	114.9	119.5	

Donbasenergo

Valuation date 20-Jun-06

For the purposes of fore	casting local	currency is	s used (mlı	ר)						
	2006E	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E
EBITDA	193	234	306	347	351	345	331	354	329	338
EBIT	111	149	198	229	228	219	201	222	195	203
Tax Rate	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Taxed EBIT	83	112	149	172	171	164	151	167	146	152
Plus D&A	82	85	108	118	123	126	130	132	134	136
Less CapEx	(104)	(165)	(210)	(202)	(190)	(185)	(155)	(135)	(134)	(134)
Less change in OWC	(27)	(11)	(9)	(15)	(26)	(13)	(14)	(18)	(11)	(12)
FCFF	-	21	38	72	78	93	112	146	135	142
WACC	13.6%	11.4%	10.4%	9.7%	9.1%	8.7%	8.3%	7.9%	8.1%	8.2%
WACC To Perpetuity										12%
Terminal Value										1,447
Firm Value		1,207			F	Portion Due	e To TV			57.5%
Less Net Debt		(327)			F	Perpetuity (Growth Rat	e		2.0%
Equity Value		879			I	Implied exi	t EBITDA n	nultiple		4.3 x
DCF-based 12m price		7.4								
Current stock price		5.3								
Upside		42%								

	In	nplied Sha	re Price, l	JSD		
WACC		Perp	etuity Gro	wth Rate		
	1.0%	1.5%	2.0%	2.5%	3.0%	
-1.5%	7.8	8.2	8.5	8.9	9.3	
-1.0%	7.5	7.8	8.1	8.5	8.9	
-0.5%	7.2	7.5	7.8	8.1	8.5	
+0.0%	6.9	7.1	7.4	7.8	8.2	
+0.5%	6.5	6.8	7.1	7.4	7.8	
+1.0%	6.3	6.5	6.8	7.1	7.5	
+1.5%	6.0	6.2	6.5	6.8	7.1	

Zakhidenergo

20-Jun-06

For the purposes of forecasting local currency is used (mln)

	2006E	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E
EBITDA	151	372	438	504	537	535	533	532	530	546
EBIT	87	303	364	425	452	446	439	436	432	446
Tax Rate	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Taxed EBIT	64	68	74	79	85	90	94	97	98	100
Plus D&A	35	85	120	140	110	80	50	-	-	-
Less CapEx	(84)	(184)	(230)	(225)	(215)	(200)	(165)	(135)	(101)	(100)
Less change in OWC	(27)	(9)	(30)	(20)	(45)	(19)	(32)	(27)	(25)	(23)
FCFF	-	103	87	153	164	205	227	262	296	312
WACC	16.4%	13.1%	11.8%	10.8%	10.2%	9.7%	9.2%	8.8%	8.8%	8.8%
WACC To Perpetuity										12%
Terminal Value										3,181
Firm Value		2,484			F	Portion Due	To TV			56.8%
Less Net Debt		(316)			F	Perpetuity (Growth Rat	e		2.0%
Equity Value		2,168			I	mplied exit	t EBITDA m	nultiple		5.8 x
DCF-based 12m price		33.9								
Current stock price		26.5								
Upside		28%								

	In	nplied Sha	re Price, l	JSD		
WACC		Perp	etuity Gro	wth Rate		
	1.0%	1.5%	2.0%	2.5%	3.0%	
-1.5%	39.5	40.8	42.3	43.9	45.7	
-1.0%	36.7	37.9	39.3	40.8	42.4	
-0.5%	34.1	35.2	36.5	37.9	39.4	
+0.0%	31.7	32.7	33.9	35.2	36.6	
+0.5%	29.5	30.5	31.5	32.7	34.0	
+1.0%	27.4	28.3	29.3	30.4	31.6	
+1.5%	25.6	26.4	27.3	28.3	29.5	

Valuation Summary

Comparable multiples imply values which are based on the short-term margins of GenCos. Due to temporary regulation distortions these margins do not reflect the midterm earning potential of GenCos. We believe our DCF model more accurately reflects GenCos' midterm value. Therefore, we use DCF when determining the companies' 12m target.







Source: company data, Bloomberg, Concorde Capital

DCF

Market Price



EV/EBITDA 2006 P/E 2006





Source: company data, Bloomberg, Concorde Capital

We downgrade our recommendations for **CEEN** from BUY to **HOLD**.

We re-iterate our **BUY** recommendations for **DNEN**, **DOEN** and **ZAEN**.

PROFILES

Centrenergo (CEEN: HOLD)

Market Price USD 0.78 Target price 0.91 (upside 17%)



Market information	
Bloomberg	CEEN UZ
Reuters	CEEN.PFT
XETRA	DBG
No of shares, min	369.41
Reg S GDR to Ord.	1:10
Market price, USD	0.78
52 Wk H/L, USD	0.87/0.50
MCap, USD min	288.9
Free float, %	15.9%
Free float, USD mln	45.9
Stock ownership:	
NC ECU (state)	78.3%
Alfa Capital	5.8%
Others	15.9%

Key Ratios (2006E):	
EBITDA margin	10.1%
Net margin	2.9%
Net debt/Equity	0.25

Installed capacity, GW: Total 7.55 Coal-fueled 4.55

Market Multiples:									
	2005	2006							
EV/S	1.04	0.72							
EV/EBITDA	10.3	7.2							
P/E	24.3	17.9							
P/B EV/Inst.	0.69	0.68							
capacity	86.9	87.1							

The company has the largest share of gas-fueled capacities which will see little demand in the future

Two of its three power plants are not price competitive

The resolution of its debt problem has been postponed until 2007; however, during this period the company is protected from bankruptcy by law

CEEN receives additional payments (via electricity tariff surcharges) for the re-payment of loans for reconstruction projects. The regulator has approved a total USD 7 mln in additional payments in 2006.

The reconstruction of unit #8 at Zmiiv power plant (finished in late 2005) was the most successful in the Ukrainian energy sector. Its experience will be used in the reconstruction of Zmiiv unit #9



Trypillia TPP



Uglegorsk TPP



Zmiiv TPP

Centrenergo (CEEN): Financial Summary

Income Statement Summary, USD mln

_	2004	2005	2006E	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E
Net Revenues	307	381	547	616	677	725	777	817	861	898	914	942
Change y-o-y	N/M	24%	43%	13%	10%	7%	7%	5%	5%	4%	2%	3%
Cost Of Sales	(255)	(319)	(462)	(507)	(551)	(588)	(636)	(676)	(712)	(746)	(768)	(791)
Gross Profit Other Operating Income	52	62	85	109	125	137	141	141	149	152	146	151
SG&A	(5)	(7)	(9)	(10)	(11)	(12)	(13)	(14)	(14)	(15)	(16)	(16)
EBITDA	39	38	55	77) 90) 99	100) 98	103	104	97	100
EBITDA margin, %	12.6%	10.1%	10.1%	12.4%	13.3%	13.7%	12.9%	12.0%	12.0%	11.6%	10.6%	10.6%
EBIT	15	14	31	53	66	74	74	71	76	77	70	73
EBIT margin, % Interest Expense	4.7% (9)	3.7% (9.3)	5.7% (10)	8.5% (11)	9.7% (11)	10.2% (11)	9.5% (11)	8.7% (10)	8.8% (9)	8.6% (8)	7.7% (8)	7.8% (9)
Financial income/(expense)	-	-	-	-	-	-	-	-	-	-	-	-
Other income/(expense)	(5)	15	-	-		-	-	-	-	-	-	-
PBT Tax	1 (8)	(8)	21 (5)	(11)	(14)	(16)	(16)	(15)	67 (17)	69 (17)	(15)	64 (16)
Effective tax rate	675%	39%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Extraordinary Income/(loss)	-	-	-	-	-	-	-	-	-	-	-	-
Net Income	(6.4)	11.9	16.0	32	41	47	47	46	50	52	46	48
Dividend Declared	0.5	4.8	4.3	6.0	8.0	9.8	13.1	18.4	24.9	30.8	32.3	33.8
Balance Sheet Summary, USD mln	2004	2005	2006F	2007F	2008F	2009F	2010F	2011F	2012F	2013E	2014F	2015F
Current Assets	378	374	20002	20076	20002	20092	20102	20116	20120	20156	20175	2015
Cash & Equivalents	8	2	6	6	7	7	8	8	9	9	9	9
Trade Receivables	324	319	164	160	159	149	156	165	169	173	174	174
Other current assets	16	15	19	22	24	25	27	29	30	31	27	25
Fixed Assets	512	512	673	678	692	708	721	732	736	738	738	738
PP&E, net	439	499	485	486	506	539	560	568	576	577	577	577
Other Fixed Assets	/3	13	189	192	186	170	161	164	160	160	160	160
Total Assets	890	886	906	914	933	946	972	998	1,012	1,022	1,021	1,022
Shareholders' Equity	391	411.1	419	435	458	485	509	536	562	582	596	611
Reserves and Other	90 411	90 424	90 420	90 410	90 400	90 390	380	380	90 380	90 380	380	90 380
Retained Earnings	(110)	(108)	(102)	(93)	(81)	(66)	(50)	(35)	(22)	(9)	5	20
inv obligations Translation Adjustment	-	5	5	22	43	65 6	83	95	107	115 6	115 6	115 6
Current Liabilities	189	241	270	284	292	289	294	298	298	295	286	285
ST Interest Bearing Debt	28	36	49	55	58	59	61	59	54	49	52	53
I rade Payables Accrued Wages	/4	11/	125	113	104	104	113	119	118	120	113	107
Accrued Taxes	14	15	17	18	20	22	23	25	26	27	27	28
Other Current Liabilities	73	76	77	97	109	102	96	94	98	97	91	94
LT Liabilities	310 89	234 73	217	196	183 53	172 52	169 59	164	153 63	145 65	138 68	127 67
Other LT	220	161	148	140	130	120	110	100	90	80	70	60
Total Liabilities & Equity	890	886	906	914	933	946	972	998	1,012	1,022	1,021	1,022
Cash Flow Statement Summary, U	SD mln											
Net Income	(6)	2005 12	2006E 16	2007E 32	2008E 41	2009E 47	<u>2010E</u> 47	2011E 46	2012E 50	2013E 52	2014E 46	2015E 48
Depreciation	24	24	24	24	25	26	26	27	27	27	27	27
Changes in working capital	(15)	(21)	(168)	(0)	(7) (4)	(9)	(16)	(9)	(2)	(9)	(17)	(10)
Operating Cash Flow	15	26	22	50	54	61	53	59	72	67	53	62
Capital Expenditures net	(2)	(5)	(21)	(29)	(38)	(42)	(39)	(38)	(31)	(28)	(27)	(27)
Other Investments, net	0	0	-	(23)	-	-	-	-	-	-	-	-
Investing Cash Flow	(2)	(5)	(21)	(29)	(38)	(42)	(39)	(38)	(31)	(28)	(27)	(27)
Net Borrowings/(repayments)	(9)	(14)	8	(8)	(16)	0	9	(25)	(7)	(2)	7	(1)
Other	(1)	(3)	(0)	-	- (10)	- (19)	(21)	(25)	(33)	(30)	(32)	(34)
Financing Cash Flow	(10)	(Ż6)	1	(20)	(16)	(18)	(13)	(21)	(40)	(38)	(26)	(35)
Beginning Cash Balance	N/A	8	2	6	6	7	7	8	8	9	9	9
Ending Cash Balance Net Cash Inflows/Outflows	8	(6)	5 3	6 1	1	0	8	8 0	0	0	0	0

Dniproenergo (DNEN: BUY)

Market Price USD 75.24 Target price 123.0 (upside 63%)



Market information	
Bloomberg	DNEN UZ
Reuters	DNEN.PFT
XETRA	DPG
No of shares, min	3.92
Reg S GDR to Ord.	4:1
Market price, USD	75.24
52 Wk H/L, USD	84/55
MCap, USD min	294.9
Free float, %	15.3%
Free float, USD mln	45.0
Stock ownership:	
NC ECU (state)	76.0%
Alfa Capital	8.7%
Others	15.3%

LDI I DA IIIdi gi		11.0 /0
Net margin		3.6%
Net debt/Equi	ty	0.43
Installed car	acity Cl	A/.
Installed ca	bacity, G	W:
Total		8.16
		5 76
Coal-fueled		517 0
Coal-fueled		5170
Coal-fueled	ples:	5170
Coal-fueled	ples: 2005	2006
Coal-fueled Market Multi EV/S	ples: 2005 0.86	2006 0.62
Coal-fueled Market Multi EV/S EV/EBITDA	ples: 2005 0.86 5.4	2006 0.62 5.4
Coal-fueled Market Multi EV/S EV/EBITDA P/E	ples: 2005 0.86 5.4 63.4	2006 0.62 5.4 14.7
Coal-fueled Market Multi EV/S EV/EBITDA P/E P/B	2005 0.86 5.4 63.4 4.28	2006 0.62 5.4 14.7 3.29
Coal-fueled Market Multi EV/S EV/EBITDA P/E P/B EV/Inst.	2005 0.86 5.4 63.4 4.28	2006 0.62 5.4 14.7 3.29

Key Ratios (2006E):

The company is the most fuel-efficient and the most profitable of the state-controlled GenCos.

It has the largest share of idle gas-fueled capacities.

The first stage of the debt clearing process (reconciliation of mutual debts) did not solve its debt problem, so all hopes rest with the second stage, in which debt will be repaid through tariff surcharges, starting in 2007.

Production By TPP, TWh









Kryvyi Rih TPP

Zaporizhia TPP

Dniproenergo (DNEN): Financial Summary

Income Statement Summary, USD mln

Income Statement Summary, USI	2004	2005	2006E	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E
Net Revenues	327	408	566	646	689	735	769	809	863	919	935	963
Change v-o-v	N/M	25%	39%	14%	7%	7%	5%	5%	7%	6%	2%	3%
Cost Of Sales	(266)	(340)	(481)	(537)	(569)	(600)	(626)	(658)	(708)	(759)	(782)	(805)
Gross Profit	62	68	85	109	120	136	143	151	155	160	153	158
Change y-o-y	N/M	10.3%	24.4%	28.3%	10.4%	12.9%	5.5%	5.6%	2.5%	3.2%	-4.1%	3.0%
% of Net Revenues	19%	16.7%	15.0%	17%	17%	18%	19%	19%	18%	17%	16%	16%
Other Operating Income												
SG&A FRITDA	(7) 49	(9)	(11)	(13) 87	(13)	(14)	(15)	(16) 1 24	(17) 125	(18) 128	(19)	(19) 124
EBITDA margin, %	15.1%	16.1%	11.5%	13.4%	14.0%	15.1%	15.2%	15.3%	14.5%	13.9%	12.9%	12.9%
Depreciation	(35)	(38)	(31)	(32)	(32)	(33)	(34)	(34)	(35)	(34)	(34)	(33)
EBIT margin, %	4.3%	6.8%	6.0%	8.5%	9.4%	10.6%	10.8%	11.1%	10.5%	10.2%	9.3%	9.4%
Interest Expense	(2)	(1.9)	(5)	(6)	(7)	(7)	(7)	(8)	(7)	(7)	(7)	(7)
Financial income/(expense)	(0)	0	-	-	-	-	-	-	-	-	-	-
Other income/(expense)	(1)	(0)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
PBT Tax	(17)	(21)	(7)	(12)	(14)	(17)	(19)	(20)	(21)	(22)	(20)	(21)
Effective tax rate	145%	82%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Extraordinary Income/(loss)	-	-	-	-	-	-	-	-	-	-	-	-
Net Income	(5.2)	4.7	20.1	36	43	52	56	61	62	65	59	63
Dividend Declared	0.5	-	J.J 70	5.078	0.270	-	15.3	21.4	25.0	28.2	29.7	31.3
Balance Sheet Summary, USD ml	n 2004	2005	2006E	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E
Current Assets	182	194	203	218	233	246	254	268	288	308	317	327
Cash & Equivalents	9	9	11	13	14	15	15	16	17	18	19	19
Trade Receivables	119	118	109	114	121	128	130	137	148	159	164	169
Other current assets	13	21	26	28	30	32	34	36	38	40	41	42
Fixed Assets	333	355	349	360	380	406	433	455	471	478	478	479
PP&E, net	311	308	296	311	326	370	408	425	445	449	449	449
Other Fixed Assets	21	47	52	49	54	37	25	30	26	28	29	29
Total Assets	514	549	552	578	613	653	687	723	759	786	795	805
Shareholders' Equity	59	68.8	89.8	120	150	191	228	258	292	329	343	376
Share Capital Reserves and Other	19 404	19 432	19 436	19 430	19 418	19 405	19 402	19 392	19 390	19 390	19 374	19 376
Retained Earnings	(364)	(382)	(366)	(340)	(309)	(274)	(251)	(230)	(205)	(177)	(147)	(116)
Inv obligations	(0)	1	- 1	11	22	40	58	76	88	96	96	96 1
	(0)	1							1			1
ST Interest Bearing Debt	263 35	300 52	303 49	324 56	339 59	348 52	351 53	354 51	365 49	375	375 45	382
Trade Payables	97	114	109	107	108	107	104	102	110	118	122	123
Accrued Wages	1 75	1	2 80	2 84	2	2	2	2	3 104	3 110	3 112	116
Other Current Liabilities	56	58	63	75	80	92	95	99	98	100	94	96
LT Liabilities	192	180	159	134	124	115	108	111	102	81	77	48
LT Interest Bearing Debt	17	15	15	20	24	25	38	41	42	37	41	38
Other LI	176	165	144	114	100	90	70	70	60	44	36	10
Total Liabilities & Equity	514	549	552	578	613	653	687	723	759	786	795	805
Cash Flow Statement Summary, U	JSD mln	2005	20065	20075	20095	2000F	20105	20115	20125	20125	20145	20155
Net Income	(5)	5	20002	36	43	52	56	61	62	65	59	63
Depreciation	35	38	31	32	32	33	34	34	35	34	34	33
% of Sales	(25) 7.6%	7.0%	-2.6%	-4.3%	-3.9%	-2.3%	-2.2%	(2) -0.2%	-1.7%	-1.8%	-3.5%	-2.6%
Changes in working capital	(3)	(9)	(3)	(9)	(3)	(3)	(6)	(8)	(1)	0	(1)	(1)
Operating Cash Flow	2	5	34	31	45	66	68	85	81	82	59	70
Capital Expenditures, net	(6)	(19)	(29)	(40)	(51)	(58)	(60)	(55)	(49)	(39)	(34)	(34)
Investing Cash Flow	(2)	(3)	(29)	(40)	(51)	(58)	(60)	- (55)	(49)	(39)	(34)	(34)

(3)

-(3)

9 11

2

(2) (0) 0 (2)

N/A 9

(1)

Net Borrowings/(repayments) Dividends Paid Other Financing Cash Flow

Beginning Cash Balance Ending Cash Balance Net Cash Inflows/Outflows

(3) (0) (0) (3)

9 9

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Donbasenergo (DOEN: BUY)

Market Price USD 5.25 Target price 7.4 (upside 41%)



Market information		Key Ra
Bloomberg	DOEN UZ	EBITDA
Reuters	DOEN.PFT	Net mar
		Net deb
No of shares, min	23.64	
		Installe
		Total
Market price, USD	5.25	Coal-fue
52 Wk H/L, USD	6.8/3.5	
MCap, USD min	124.1	Market
Free float, %	14.0%	
Free float, USD mln	17.4	EV/S
		EV/EBIT
Stock ownership:		P/E
NC ECU (state)	85.8%	P/B EV/Inst
Others	14.2%	capacity

Key Ratios (2006E):	
EBITDA marg	in	12.5%
Net margin		4.2%
Net debt/Equi	ty	0.39
Installed ca	pacity, G	W:
Total		2.71
Coal-fueled		2.71
Market Multi	iples:	
	2005	2006
EV/S	0.89	0.64
EV/EBITDA	4.9	5.2
P/E	11.2	9.6

0.72

73.6

0.67

72.9

It obtains the largest amount of CapEx financing through additional tariff surcharges: USD 16 mln expected in 2006.

Its large 2005 margins are connected to temporary differences created by regulations (see page 21).

A new, efficient power unit with CFB technology (able to burn coal refuse) is currently being repaired and is expected to go online in 2008.

Another power unit with a CFB boiler is planned; the project is scheduled to be completed in 2009.

Production By TPP, TWh





Starobeshev TPP



Slaviansk TPP

Donbasenergo (DOEN): Financial Summary

Income Statement Summary, USD min

	2004	2005	2006E	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E
Net Revenues	170	224.4	307.1	341	372	403	430	458	485	510	526	542
Change y-o-y	N/M	32%	37%	11%	9%	8%	7%	6%	6%	5%	3%	3%
Cost Of Sales	(129)	(172)	(256)	(279)	(295)	(317)	(342)	(369)	(398)	(417)	(436)	(449)
Change y-o-y	N/M	33%	49%	9%	6%	7%	8%	8%	8%	5%	5%	3%
Gross Profit	40	53	51	61	77	86	89	89	88	93	89	92
Change y-o-y	N/M	31.2%	-3.1%	20.6%	25.1%	12.2%	2.6%	0.5%	-1.4%	6.5%	-4.3%	3.0%
Other Operating Income	2470	23.0%	10.0%	18%	21%	21%	21%	19%	18%	18%	1770	1770
Change y-o-y % of Net Revenues	N/M -6%	-49% <i>-2%</i>	-19% <i>-1%</i>	23% - <i>1%</i>	7% -1%	8% -1%	8% -1%	8% -1%	8% -1%	5% -1%	5% - <i>2%</i>	3% -2%
SG&A	(6)	(7)	(9)	(10)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(16)
EBITDA FBITDA margin %	24.8 14.6%	40.6 18.1%	38.2 12.5%	46.8 13.8%	61.2 16.5%	69.3 17.2%	70.2 16.3%	69.1 15.1%	66.2 13.6%	70.8 13.9%	65.7 12.5%	67.7 12.5%
Depreciation	(17)	(16)	(16)	(17)	(22)	(24)	(25)	(25)	(26)	(26)	(27)	(27)
EBIT	8	25	22	30	40	46	46	44	40	44 9 70/-	39	41
Interest Expense	(4)	(4.9)	(5)	(5)	(6)	(6)	(6)	9.0%	(5)	(5)	(5)	(5)
Other income/(expense)	(3)	6	-	-	-	-	-	-	-	-	-	-
РВТ	Ó	25	17	24	34	40	40	38	35	39	34	36
lax Effective tax rate	-27%	(14) 56%	(4) 25%	(6) 25%	(8) 25%	(10) 25%	(10) 25%	(10)	(9) 25%	(10) 25%	(8) 25%	(9) 25%
Net Income	0.2	11.1	12.9	18	25	30	30	29	26	29	25	27
Net Margin, %	0%	4.9%	4.2%	5.4%	6.8%	7.4%	6.9% 53	6.3%	5.5%	5.8%	4.8%	4.9%
Dividend Declared	0.5			2.5	2.5	4.1	5.5	0.7	10.2	14.1	15.2	10.1
Balance Sheet Summary USD	min											
<u> </u>	2004	2005	2006E	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E
Current Assets	144	135	151	159	167	180	188	197	205	214	217	224
Cash & Equivalents	18	12	10	10	10	10	9	8	7	8	8	8
Inventories	25	70 32	74 41	75 45	49	55	57	88 62	90 67	93 70	97 74	76
Other current assets	16	21	26	29	32	34	37	39	41	43	38	40
Fixed Assets	380	388	386	392	402	419	432	444	449	450	450	449
PP&E, net	204	205	206	220	329	372	392	400	409	410	410	409
Other Fixed Assets	176	183	180	1/2	/3	47	41	44	40	40	40	40
Total Assets	524	523	537	551	569	599	621	641	654	664	667	674
Shareholders' Equity	150	172.1	186.6	211	237	275	303	328	350	364	377	391
Reserves and Other	214	227	230	238	242	254	258	261	267	265	268	271
Retained Earnings	(109)	(102)	(102)	(99)	(94)	(88)	(80)	(70)	(60)	(50)	(40)	(30)
Investment obligations			12	24	42	62	/8	90	96	102	102	102
Current Liabilities	176	182	188	193	200	209	214	222	228	236	235	240
Trade Pavables	30 44	30 41	41	44	45	30 49	53	52 57	52 62	63	66	54 68
Accrued Wages	1	1	1	1	1	2	2	2	2	2	2	2
Accrued Taxes Other Current Liabilities	14 88	10 93	12 102	14 104	15 107	16 112	17	18 113	19 113	20 116	21 113	22
	100	100	102		100		100					
LT Interest Bearing Debt	198 67	169 50	163 53	147 47	133 43	115 35	103 33	91 31	26	33	55 25	43 23
Other LT	131	119	110	100	90	80	70	60	50	30	30	20
Total Liabilities & Equity	524	523	537	551	569	599	621	641	654	664	667	674
Cash Elow Statement Summer												
cash now statement Summan	1, 550 mm											

Cash Flow Statement Summary, USD min												
	2004	2005	2006E	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E
Net Income	0	11	13	18	25	30	30	29	26	29	25	27
Depreciation	17	16	16	17	22	24	25	25	26	26	27	27
Non-operating and non-cash items	17	(4)	(0)	14	10	10	1	(2)	(1)	(18)	3	(7)
% of Sales	-10.2%	1.8%	-0.2%	4.0%	2.8%	2.5%	0.2%	-0.5%	-0.3%	-3.5%	0.5%	-1.4%
Changes in working capital	(9)	(1)	(5)	(2)	(2)	(3)	(5)	(3)	(3)	(4)	(2)	(2)
Operating Cash Flow	26	22	23	47	56	60	50	49	48	34	53	44
Capital Expenditures, net	(19)	(5)	(21)	(33)	(42)	(40)	(38)	(37)	(31)	(27)	(27)	(27)
Other Investments, net	Ó	Ó	- /	-	- /	-	-	-	-	-	-	- /
Investing Cash Flow	(19)	(5)	(21)	(33)	(42)	(40)	(38)	(37)	(31)	(27)	(27)	(27)
Net Borrowings/(repayments)	3	(14)	(5)	(6)	(4)	(8)	(1)	(2)	(5)	11	(10)	(1)
Dividends Paid	(0)	(0)	-	(7)	(10)	(12)	(12)	(11)	(13)	(18)	(15)	(16)
Other	(10)	(9)	-	- '	-	`- ´	- /	· - /	-	-	-	_
Financing Cash Flow	(7)	(23)	(5)	(13)	(14)	(20)	(13)	(13)	(18)	(7)	(26)	(17)
Beginning Cash Balance	N/A	18	12	10	10	10	10	9	8	7	8	8
Ending Cash Balance	18	12	10	10	10	10	9	8	7	8	8	8
Net Cash Inflows/Outflows	0	(6)	(2)	0	(0)	(0)	(1)	(1)	(1)	0	0	0

Zakhidenergo (ZAEN: BUY)

Market Price USD 26.53 Target price 34.0 (upside 28%)



Market information	
Bloomberg	ZAEN UZ
Reuters	ZAEN.PFT
XETRA	WT7
No of shares, min	12.79
Reg S GDR to Ord.	4:1
Market price, USD	26.53
52 Wk H/L, USD	32.8/23.6
MCap, USD min	339.3
Free float, %	29.9%
Free float, USD min	101.5

Stock ownership:	
NC ECU (state)	70.1%
East Capital	6.0%
Others	23.9%

(ey Ratios (2006E):	
BITDA margin	4.5%
let margin	1.1%
let debt/Equity	0.19

talled capacity, GW:	
al	4.6
l-fueled	4.6

Market Multiples:								
	2005	2006						
EV/S	0.83	0.59						
EV/EBITDA	17.2	13.2						
P/E	83.6	46.6						
P/B	1.24	1.19						
EV/Inst.								
capacity	87.1	85.7						

ZAEN has a monopoly on exports and its exportoriented capacities have nearly reached full utilization.

It expects to finish construction of a new unit in 2009 to increase its export capacity.

It could soon be allowed to export electricity directly, instead of via the state-controlled export operator.

High production costs make the company's margins highly sensitive to integral surcharges stipulated by the regulator: in times of fast electricity tariff growth the regulator decreases surcharges negatively affecting ZAEN's margins. We expect margins to improve following the stabilization of fuel prices in 2007.



Production By TPP, TWh



Burshtyn TPP

Dobrotvir TPF

Ladyzhyn TPP

Zakhidenergo (ZAEN): Financial Summary

Income Statement Summary, USD min

	2004	2005	2006E	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E
Net Revenues	368	481.8	667.6	738	786	844	926	977	1,029	1,084	1,116	1,150
Change y-o-y	N/M	31%	39%	10%	7%	7%	10%	6%	5%	5%	3%	3%
Cost Of Sales	(316)	(438)	(604)	(627)	(660)	(702)	(773)	(822)	(871)	(923)	(954)	(983)
Gross Profit	52	44	63	111	126	142	153	155	158	161	162	167
Change y-o-y	N/M	-15.9%	45.0%	74.5%	14.0%	12.7%	7.6%	1.6%	1.5%	1.8%	0.8%	3.0%
% of Net Revenues	14%	9.1%	9.5%	15%	16%	17%	17%	16%	15%	15%	15%	15%
Other Operating Income												
SG&A	(7)	(12)	(13)	(15)	(16)	(17)	(19)	(20)	(21)	(22)	(22)	(23)
EBITDA	21.0	23.2	29.9	74.3	87.6	100.9	107.4	107.0	106.6	106.5	106.0	109.2
EBITDA margin, %	5.7%	4.8%	4.5%	10.1%	(15)	12.0%	(17)	10.9%	10.4%	9.8%	9.5%	9.5%
EBIT	9	11	17	61	73	85	90	89	88	87	86	89
EBIT margin, %	2.5%	2.3%	2.6%	8.2%	9.3%	10.1%	9.8%	9.1%	8.5%	8.0%	7.7%	7.8%
Interest Expense	(3)	(5.0)	(8)	(7)	(7)	(8)	(8)	(7)	(7)	(7)	(7)	(8)
Financial income/(expense)	0	0	-	-	-	-	-	-	-	-	-	-
Other income/(expense)	2	1	-	-	-	-	-	-	-	-	-	-
PBT	8	7	10	54	66	77	83	(20)	(20)	80	79	(20)
Fffective tax rate	-31%	(3) 40%	(Z) 25%	(14) 25%	(16) 25%	(19)	(21) 25%	(20) 25%	(20) 25%	(20)	(20) 25%	(20)
Extraordinary Incomo/(loss)	(0,1)	1070	2070	2070	2070	2070	2070	2070	2070	2070	2070	2070
Net Income	10.9	4.1	7.3	41	49	- 58	62	61	61	60	- 59	61
Net Margin, %	3%	0.8%	1.1%	5.5%	6.2%	6.9%	6.7%	6.3%	5.9%	5.5%	5.3%	5.3%
Dividend Declared	0.5	1.6	2.9	11.1	12.5	14.8	22.8	24.6	31.9	39.9	41.4	42.7
Balance Sheet Summary, USD mln												
	2004	2005	2006E	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E
Current Assets	182	202	223	234	248	261	284	297	312	327	338	348
Cash & Equivalents	122	1	127	120	127	7	7	150	8	172	170	9
Inventories	32	43	57	130	137	143	154	159	100	92	1/9	184
Other current assets	26	28	34	37	39	42	46	49	51	54	56	57
Fixed Accets	283	308	310	335	366	306	422	AAA	458	466	466	466
PP&E. net	228	249	268	290	320	349	376	399	417	425	426	426
Other Fixed Assets	55	58	43	45	46	46	46	45	41	41	41	41
Total Assets	465	509	535	569	614	657	706	741	770	793	805	815
Shareholders' Equity	255	273.6	286.1	310	353	304	427	451	475	488	497	507
Share Capital	24	24	24	24	24	24	24	24	24	24	24	24
Reserves and Other	289	310	314	317	315	312	305	293	288	282	268	264
Retained Earnings	(58)	(62)	(58)	(42)	(23)	(1)	22	47	68	85	103	121
Translation Adjustment	-	1	5	18	36	5/	/4	86	93	96	96	96
Current Liabilities	102	149	144	153	164	174	191	202	213	224	231	239
Trade Pavables	42	45	47	50	53	57	63	67	71	76	78	80
Accrued Wages	2	3	3	3	4	4	4	5	5	5	5	6
Accrued Taxes	13	16	17	18	20	21	23	24	26	27	28	29
Uther Current Liabilities	26	34	41	44	47	51	56	59	62	65	67	69
LT Liabilities	108	87	105	97	97	88	88	88	83	80	81	68
LI Interest Bearing Debt	10 98	9 78	25 80	27	37	34 54	34 54	34 54	33	34 ⊿6	37 44	42
	50	70	30	70	00	74	74	54	50	40	-4	20
Total Liabilities & Equity	465	509	535	569	614	657	706	741	770	793	805	815

Cash Flow Statement Summary, USD mIn												
• •	2004	2005	2006E	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E
Net Income	11	4	7	41	49	58	62	61	61	60	59	61
Depreciation	12	12	13	14	15	16	17	18	19	19	20	20
Non-operating and non-cash items	(5)	(7)	11	(1)	(6)	(0)	1	(6)	(5)	(8)	(16)	(21)
% of Sales	1.5%	1.4%	1.7%	-0.2%	-0.7%	0.0%	0.2%	-0.6%	-0.4%	-0.8%	-1.4%	-1.9%
Changes in working capital	5	(31)	(5)	(2)	(6)	(4)	(9)	(4)	(6)	(5)	(5)	(5)
Operating Cash Flow	22	(21)	26	51	52	70	72	69	69	66	58	55
Capital Expenditures, net	(9)	(13)	(17)	(37)	(46)	(45)	(43)	(40)	(33)	(27)	(20)	(20)
Other Investments, net	(0)	0	-	-	-	-	-	-	-	-	-	-
Investing Cash Flow	(9)	(13)	(17)	(37)	(46)	(45)	(43)	(40)	(33)	(27)	(20)	(20)
Net Borrowings/(repayments)	(0)	30	(2)	3	14	(1)	3	2	1	4	4	8
Dividends Paid	(2)	(1)	(3)	(16)	(20)	(23)	(31)	(31)	(36)	(42)	(41)	(43)
Other	(9)	4				-	-		-	-	-	-
Financing Cash Flow	(11)	33	(5)	(14)	(6)	(24)	(28)	(29)	(35)	(38)	(37)	(35)
Beginning Cash Balance	N/A	2	1	5	6	6	7	7	8	8	9	9
Ending Cash Balance	2	1	5	6	6	7	7	8	8	9	9	9
Net Cash Inflows/Outflows	2	(1)	4	0	0	0	1	0	0	0	0	0

APPENDICES

APPENDIX 1: Coal Type And Gas Use

In the thermal power units fueled by coal, there is a relationship between the type of coal used, maneuverability, and the proportion of gas needed to be mixed with the coal:

- maneuverable units use more gas (than base-load units) to support their maneuverability feature
- anthracite coal demands more gas than light coal, making anthracite-fueled power units less price-competitive *ceteris paribus*

Coal In Fuel Mix (2m2006) vs Power Units Features



Source: Energobiznes, Concorde Capital

* this is an outlier: Burstyn TPP, which works according to the special schedule

When the gas/coal price ratio increases, the straightforward conclusion is that maneuverable power units which use light coal become the most sought after on the market.

This theoretical conclusion is supported by recent experience.

Power Units Features vs Capacity Load* (2m2006)



Source: Energobiznes, company data, Concorde Capital calculations

* adjusted for the number of units which are being overhauled or mothballed

APPENDIX 2: Per Plant Performance And Competitiveness Analysis

DNIPROENERGO: A Winter Worker

Kryvyi Rih TPP: Work Of Power Units,





10 units, 285 MW Coal-fueled Maneuverable

Power units started to see more demand during the winter. Thus, we expect significant output growth in 2006.

Prydniprovsk TPP Work Of Power Units, #



Source: Energorynok, NERC, Concorde Capital

Production, GWh



4 Units 150 MW Coal-fueled Maneuverable

4 Units 285 MW Coal-fueled Base-load

During the hot season of 2004/2005 and "limited competition" period of mid 2005 this plant saw more demand.

If competition is not limited in 2006, output will decrease

Relatively Competitive

Zaporizhia TPP Work Of Power Units,



Production, GWh



4 Units 300 MW Coal-fueled Base-load 3 Units 800 MW Gas-fueled (didn't work at all)

Saw business in the winter.

The upper limit imposed on the power plant in mid 2005 did not noticeably change output.

Not competitive

Competitive

DONBASENERGO: Maneuverability And Bottom Limits Are Pluses

Starobeshev TPP Work Of Power Units,



Source: Energorynok, NERC, Concorde Capital

Production, GWh



12 units, 175 MW **Coal-fueled** Maneuverable

Most of the time the number of power units at work is larger than the minimum required level.

Competitive

Testing of the newly constructed unit increased utilization growth. In late 2005, during testing the unit caught fire and is now being repaired, to be commissioned in 2007.

Slaviansk TPP Work Of Power Units,



Source: Energorynok, NERC, Concorde Capital * the unit was stopped for repair in June 2005

Electricity Production, GWh 400 350 300 250 200 150 100 50 0 Jan-05 Mar-05 May-05 Jul-05 Sep-05 Nov-05 Jan-06

Production, GWh

Only 1 Unit 800 MW Coal-fueled Maneuverable

It is always included on the schedule when ready for work.

As a rule, one month per year it stops for minor repairs.

Outside the Competition

ZAKHIDENERGO: Is Not Interested In The Competition

Burshtyn TPP Work Of Power Units,



Source: Energorynok, NERC, Concorde Capital

Production, GWh



8 units 195 MW 4 units 185 MW Coal-fueled Maneuverable

The plant is fully utilized: it works in a network connected to UCTE, and therefore each power unit serves a definite aim: either for electricity generation, or for saving reserve capacity

Outside the Competition

An overhaul of one unit is expected to be completed in 2007.

Dobrotvir TPP Work Of Power Units,







3 Units 150 MW 2 Turbines 100 MW Coal-fueled Maneuverable

This power plant works in a special regime, supplying electricity and working for reserve capacity.

Outside the Competition

Ladyzhyn TPP Work Of Power Units, #



Source: Energorynok, NERC, Concorde Capital

Production, GWh



6 Units 300 MW Coal-fueled Base-Load

Works only at its minimum allowed level.

The upper limit introduced in mid 2005 did not affect the power plant's performance

Not competitive

CENTRENERGO: Counting On Zmiiv

Uglegorsk TPP Work Of Power Units,



Source: Energorynok, NERC, Concorde Capital

Production, GWh



4 units, 300 MW Coal-fueled Base-load 3 units 800 MW

Gas-fueled (didn't work at all)

Operates at close to its minimum level.

The upper limit of mid 2005 did not hurt performance.

Not competitive

Trypillia TPP Work Of Power Units,



Source: Energorynok, NERC, Concorde Capital

Production, GWh



4 units, 300 MW Coal-fueled Maneuverable

2 units 300 MW Gas-fueled (didn't work at all)

This plant worked at its minimum level except in times of severe need for additional capacity.

Zmiiv TPP Work Of Power Units, #



Source: Energorynok, NERC, Concorde Capital

Production, GWh



6 Units 175 MW Coal-fueled Maneuverable 4 units 275 MW Coal-fueled Base-load

This plant saw relatively stable demand during the winter. Also it was in demand during mid 2005 due to lower competition.

Zmiiv is expected to increase output in 2006 following the recently completed modernization of unit #8.

Competitive

Not competitive

VOSTOKENERGO: Suffering From Discrimination

Zuiv TPP



Source: Energorynok, NERC, Concorde Capital



4 units, 300 MW Coal-fueled Base-Load

This plant is in demand during the winter.

Restrictions imposed in mid 2005 limited the company's production.

Competitive







7 units, 210 MW Coal-fueled Maneuverable

This plant sees a great deal of demand and is the most utilized participants in the capacity tender.

It suffered the most from the restrictions of mid 2005.

Competitive

Luhank TPP Work Of Power Units, #



Production, GWh



7 Units 175 MW Coal-fueled Maneuverable

One of the most utilized power plants.

Competitive

APPENDIX 3: Electricity Pricing Models

Between June 2005 and February 2006, electricity market regulators experimented with a new pricing system, which we call "minimum pricing". This model led to market distortions, decreased efficiency and lower profits for GenCos. It was dropped in March 2006 in favor of the MPS ("marginal price of the system") pricing model, which improved both market efficiency and GenCos' profits. Here we explain why.

The MPS Pricing Model

This model is based on the rule that all energy units are paid an equal price for the electricity they produce, and this price is equal to the marginal price of the system (MPS).

MPS is the most expensive price applied for by a maneuverable energy unit working on a given day.

If a unit is not recognized as maneuverable, it can be priced lower than it applied for:

Example:

Assume 12 units are applying for work, and they submit a price at which they want to sell their electricity (the price to cover their variable costs). Assume the system demands only 9 power units.

How To Select The Right Power Units?

In general, to choose the units for work, the system operator arranges them from the cheapest to the most expensive, and schedules only the 9 least expensive for work.



Source: Concorde Capital

What is MPS?

MPS is the price for the most expensive maneuverable unit. Note that in our example the threshold price (125) and MPS (117) are different.

Selected Power Units.



Source: Concorde Capital

All the power units (except those suspected of dumping) sell their electricity at a marginal price (not at the price they applied for): units #1-7 from the example obtain more than they applied for, while unit #9 gets less.

If the high-cost unit (like #9) works under special conditions (as do most of **ZAEN**'s units at Burshtyn and Dobrotvir), then it is paid the maximum applied-for price or MPS.

Note that power units which are suspected of dumping (their applied-for price is lower than 90% of their estimated production costs) are paid only the price they applied for.

To cover GenCos' fixed costs, each power unit obtains capacity and maneuverability surcharges for electricity sold at MPS (which adds 30% to the final tariff on average).

The 'Minimum Pricing' Model

Under the pricing system used between June 2005 to February 2006, power units were paid either the price they applied for, or the MPS, whichever was lower. This is what we call "minimum pricing".

Power plants working under special conditions (outside the capacity tender) continued to receive the price they applied for.

Short-term Effect: Low Cost Producers' Margins Reduced

To study the theoretical effect of changes in tariff policy, we separate all the possible cases of power unit pricing into four categories:

 ${\bf A}:$ units whose costs are lower than MPS (the majority of power units); assume their costs are 130 UAH/MWh

B: a unit which determines MPS (like unit 8 in the case above); its cost is 150 UAH/MWh **C**: a unit whose price is larger than MPS, but it is allowed to work (like unit 9 in the case above); its cost is 170 UAH/MWh

D: a unit whose price is larger than MPS, but it is priced, by exception, at the applied-for price even if it is larger than MPS (most of power units connected to UCTE); its cost is 170 UAH/MWh

Assume also that all the power units obtain equal surcharges (40 UAH/MWh) to cover their fixed costs.

	Requested price (=Costs)	MPS	Compulsory work	Purchase Price	Surcharge	Total price	Profitability
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		=(1B)		=(2)		=(4)+(5)	= [(6)-(1)]/(6)
Α	130	150	no	150	40	190	32%
В	150	150	no	150	40	190	21%
С	170	150	no	150	40	190	11%
D	170	150	yes*	170*	40	210	19%

Old Pricing Model: Marginal Pricing (UAH/MWh)

Source: Concorde Capital * Exception from the rule of pricing

New Pricing Model (UAH/MWh)

	Requested price (=Costs)	MPS	Compulsory work	Purchase Price	Surcharge	Total price	Profitability	Prof. Change
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
		=(1)B		=MIN[(1),(2)]		=(4)+(5)	= [(6)-(1)]/(6)	New-Old
Α	130	150	no	130	40	170	24%	Decrease
в	150	150	no	150	40	190	21%	Same
С	170	150	no	150	40	190	11%	Same
D	170	150	yes*	170*	40	210	19%	Same

Source: Concorde Capital

* Exception from the rule of pricing

Conclusions:

Nothing changed for expensive power units (like unit C or D).

The profitability of low-cost units decreased, **thus they had an incentive to increase the price they applied for up to the level of the expected MPS**. As we show below, these changes yielded inefficiency on the market, caused by the growth of the offered price (MPS) and a drop in the producers' profitability.

Example: Minimum Pricing Model And λ-Inefficiency

Let us assume the managers of a power plant are going to send a price application to the energy system dispatcher, and want to set a price which maximizes the TPP's profit.

Other assumptions are (in line with capacity tender rules):

- If the TPP's price is higher than MPS, the TPP's power unit will not work today, that is it will be left in reserve. In this case the power plant will obtain UAH 10 ths
- Fixed costs are UAH 8 ths
- If a TPP's price is lower than MPS, the unit will produce 1000 MWh of electricity. In addition to electricity tariffs (UAH/MWh produced), the TPP will obtain additional (capacity and maneuverability) payments UAH 20 ths
- The dumping punishment: if a TPP's applied-for price is more than 10% lower than its variable costs, the TPP is charged with dumping, which means its output is priced at its applied-for price.
- Managers estimate that the MPS is normally distributed between 140 and 150 UAH/MWh:



MPS Probability Distribution

Source: Concorde Capital

Below we show the relationship between the applied-for price and profit of the TPP at both price systems: MPS pricing ("old" pricing) and "minimum pricing" ("new" pricing).

Variable Cost 130 UAH/MWh (Low-Cost Producer)



Old (MPS) Pricing Model:

Managers can submit any price between 117 UAH/MWh (90% of costs; setting lower price implies dumping) and 140 UAH/MWh to guarantee that their unit works, and to be priced at MPS, which is expected at 145 UAH/MWh.

New (Min.) Pricing Model:

Because in the new model, the price of an energy unit depends on the submitted price, the optimal decision is to set a maximum price which yields the highest probability that the unit will be selected for work: 142 UAH/MWh.

Note that the expected profit in the new model is lower than at the old model

Variable Cost 140 UAH/MWh (Average-Cost Producer)



Old (MPS) Pricing Model:

Again, any price between 126 (90% of actual costs) and 140 is profit-maximizing.

New (Min.) Pricing Model:

Here there appears to be an incentive to charge a higher price than the actual cost, as there is a good chance that this price will be paid by the dispatcher. In this case the optimal price is 143 UAH/MWh.

Variable Cost 150 UAH/MWh (Above-Average-Cost Producer)



Because "working" implies additional payments, it is more beneficial to work at a lower price than variable costs in both cases.

Old (MPS) Pricing Model:

Again, any price between 135 (90% of actual costs) and 140 is profit-maximizing.

New (Min.) Pricing Model:

A profit-maximizing price is 144 UAH/MWh

Variable Cost 160 UAH/MWh (High-Cost Producer)



As MPS is much lower than the producer's variable costs, in both cases it is more beneficial to not produce electricity, and instead to offer reserve capacity. Thus:

Any model:

The profit maximizing behavior is to declare any price at which the unit has no chance to work: 150 UAH/MWh and above.

In our Oblenergo report (December 15, 2005), we showed that the regulation environment led to distributors over-stating expenses and creating alpha-value. In our GenCos report, we introduce another Greek letter to describe the effect of regulation:

Under the minimum pricing model, TPPs tended to apply for higher electricity tariffs (which makes MPS rise), and at the same time their expected profits decreased, *ceteris paribus*. We refer to this effect as λ -inefficiency (due to the shape of the relationship between the pricing model, costs and expected profitability shown on the page above). Note that unlike alpha-value which increased Oblenergos' valuation, λ -inefficiency hurts GenCos' value.

Moreover, while the regulator's goal is to keep the electricity tariff as low as possible and to provide a certain level of profitability for GenCos, the effect of λ -inefficiency works simultaneously against both goals. Thus, we do not expect regulators to use the minimum pricing model in the future.

In fact, in June-July 2005, we observed the sharpest increase in MPS. One of the factors behind this growth is the change in the pricing policy. The others are: the hike in fuel prices and limitations on the work of the most cost efficient power units.

Conclusions:

- Under the pricing model introduced in June 2005, every producer tends to apply for a price higher than it applied for under the MPS pricing model. As a result, MPS and the electricity tariff under the new pricing model is higher than at MPS pricing. The positive effect in this case is the absence of dumping incentives, which simplifies the regulator's control,
- Producers are able to maximize their profits in the new model if they apply for a price close to estimated MPS (note; in our model MPS is assumed to be 145 UAH/MWh +/-5 UAH/MWh).
- In the MPS pricing model, producers have leeway to bid a wide range of prices to optimize their profits (the dark blue area on the graph), while under the minimum pricing model producers have no choice but to apply for UAH 143 per MW (light blue line).



Applied Prices At Profit-Maximizing Behavior, UAH/MWh

Source: Concorde Capital

Minimum pricing yields λ -inefficiency, which works against the regulator's goals. Thus, if the regulator is governed by efficiency considerations in its tariff policy, it will not repeat the experiment of minimum pricing.

Analyst Certification

I, Alexander Paraschiy, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this research report.

Date	CEEN Pirce	e, USD	DNEN Price , USD DOEN Price		e, USD	ZAEN Price, I	USD	
	Closing	Target	Closing	Target	Closing	Target	Closing	Target
13-May-05	0.79	0.76	74.7	88.2	4.16	6.80	27.7	29.0
30-May-05							27.7	30.5
4-Jul-05					4.35	6.00		
19-Jul-05							24.0	30.5
26-Sep-05	0.80	0.82	66.5	99.0	4.20	6.60	26.0	34.0
3-Jan-06	0.54	0.82						
20-Jun-06	0.79	0.91	76.0	123.0	5.20	7.40	26.5	34.0

Centrenergo (CEEN)



Dniproenergo (DNEN)



Donbassenergo (DOEN)



Zakhidenergo (ZAEN)



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