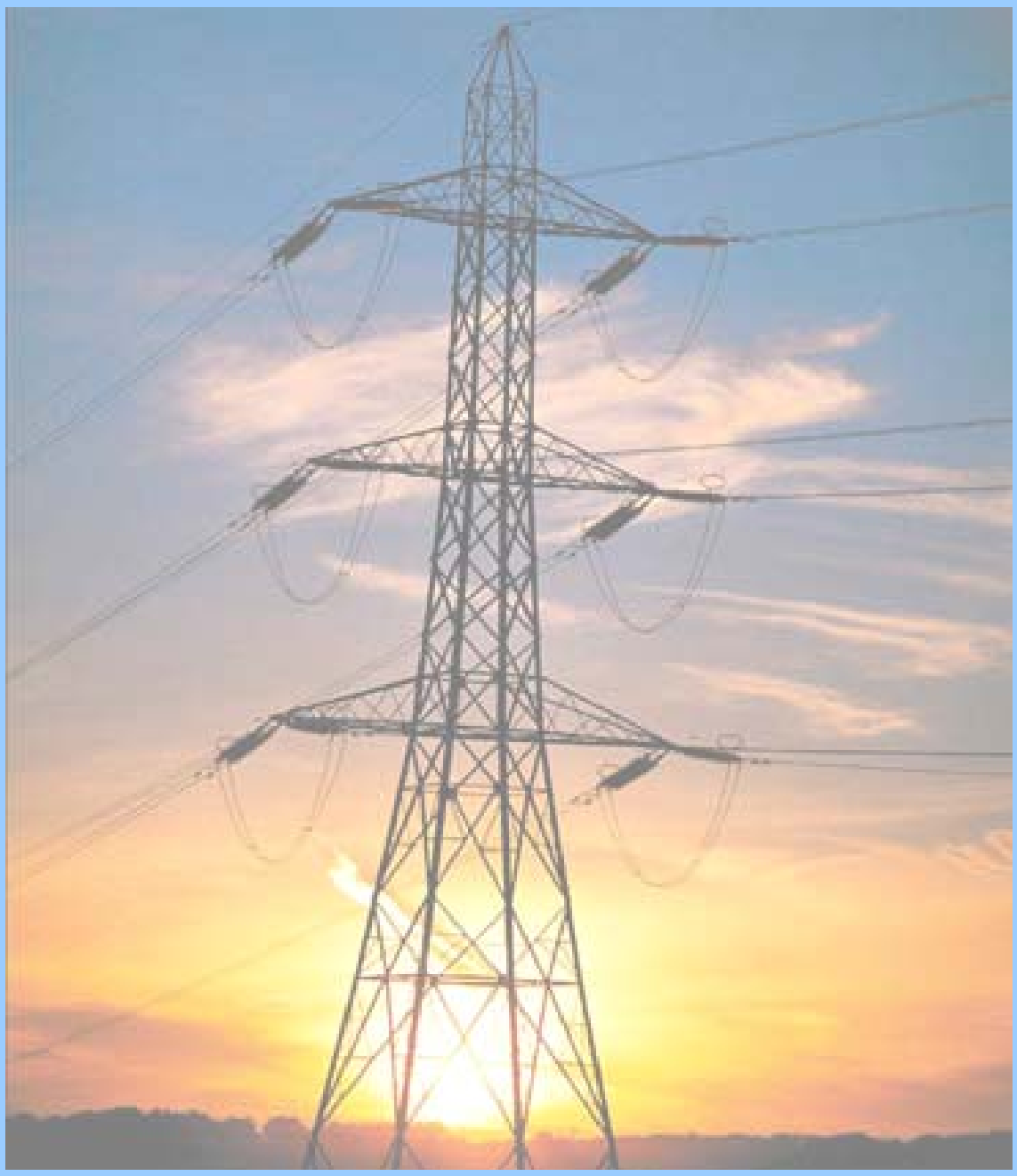
Concorde Capital

Ukraine / Utilities

Oblenergos

Sleeping beauties?

February 28, 2005



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Oblenergos are monopoly regional electricity suppliers in Ukraine, which were established based on local grid enterprises in the mid 90s. Most of them are pure distributors and purchase all their electricity from the wholesale market.

Most **Oblenergo shares are concentrated** in hands of four major groups of influence: the state energy holding NC ECU, the US-based AES Corporation, and two groups each consisting of Russian and Ukrainian residents. The high level of share concentration results in limited free float and low liquidity, complicating portfolio investment in the sector.

We **scored Oblenergos** according to basic parameters of performance and attractiveness. The major scoring factors are grid losses, top-line dynamics, accumulated debt to the wholesale electricity market, and market position sustainability.

In valuing companies, we used **a peer comparison method**, whereby Oblenergos were compared to Hungarian and Brazilian regional distributors. Due to the problems inherent to Oblenergos (significant indebtedness, over-regulation, and low profitability) we have applied a 25% to 50% discount (depending on our attractiveness score) to the average for their international peer multiples, which turned out into negative upside for most of Oblenergo stock.

However, we issue a **HOLD recommendation** for most Oblenergos. First, due to market illiquidity current prices are skewed to reflect a seller's side, in order to conservatively estimate price in a very volatile segment. Second – and the most important - we directly relate attractiveness of Oblenergos to reforms in the segment. Dependent on the direction and scope of the reforms our recommendations certainly will be revised.

Summary: Tradable Oblenergos

	Score	Sales USD nm	EBITDA margin	Net margin	Price, USD	MCap USD mn	P/S	Upside	Target price	Recommend.
TOEN	4.1	36	25%	27%	0.11	6.9	0.19	36%	0.15	buy
SOEN	4.0	61	9%	0%	0.10	17.7	0.29	12%	0.11	buy
ZHEN	4.4	56	18%	8%	0.40	49.0	0.87	-54%	0.18	hold
SMEN	4.4	26	18%	11%	0.66	17.7	0.67	-40%	0.40	hold
ROEN	4.3	57	15%	8%	0.40	33.3	0.58	-23%	0.31	hold
PREN	4.1	57	6%	neg	0.25	25.9	0.46	-13%	0.22	hold
KION	4.1	59	16%	neg	0.40	47.8	0.81	-53%	0.19	hold
HMON	4.0	47	7%	1%	0.20	26.9	0.6	-33%	0.13	hold
VOEN	4.0	29	3%	neg	0.07	31.50	1.09	-64%	0.02	hold
CHEON	3.9	63	3%	0%	0.28	33.4	0.53	-31%	0.19	hold
POON	3.7	125	1%	neg	0.22	48.6	0.39	-43%	0.13	hold
DNON	3.3	608	1%	neg	40.00	239.7	0.39	-34%	26.49	hold
HOEN	3.3	72	5%	neg	0.14	13.3	0.2	-36%	0.09	hold
CHEN	3.1	28	9%	0%	0.30	17.03	0.61	-54%	0.14	hold
HAON	2.9	155	Neg	neg	0.32	82.09	0.53	-51%	0.16	hold
ZOEN	3.1	40	7%	1%	0.25	31.2	0.77	-67%	0.08	sell
KREN	3.1	103	Neg	neg	0.57	97.9	0.95	-73%	0.15	sell
ZAON	3.0	264	0%	neg	1.00	179.4	0.68	-61%	0.39	sell
DOON	0.6	281	Neg	neg	0.99	65.1	0.23	n/m	n/a	sell

Sales and all the ratios are adjusted for accounting distortions

Content

Summary

Reforms will continue. We are optimistic in our anticipation of rapid improvements in the energy sector this year. Our hopes are pinned on a successful crisis manager - Prime Minister Yulia Tymoshenko, who brought stability to the sector in 2000. Her immediate priorities will be to restructure the enormous debt plaguing the sector and stop the practice of nonpayment in order to ensure smooth operation of the market participants.

Stringent market regulation during the transition period over the next one to two years is inevitable. The temporary ban on privatization in the sector, which has been in place since 2002, will remain in place until the sector's key problems have been resolved. The existence during this period of a state holding company to manage all energy assets is justified, since it protects and lobbies in the interest of Oblenergos placed under its charge.

Two worlds will merge as the disparity between public and private electricity distributors will be minimized before privatization auctions resume. Unlike their state-run counterparts, private companies are currently free to use every option available to boost their profit margins. Private Oblenergos serve as benchmarks for gauging the potential of other Oblenergos.

After the transition period, Oblenergos strong enough to withstand outside pressures and preserve their earning capacity will remain highly attractive. We have identified value-reducing factors and investigated ways for Oblenergos to unlock their value. Our analysis has revealed the following key factors to consider in selecting the companies that will have the largest potential to unlock their value:

- Accumulated Oblenergo debts
- The threat of competition from new market entrants and regional customer base erosion
- Payment discipline
- Top-line dynamics
- Excessive electricity losses - absolute level and dynamics

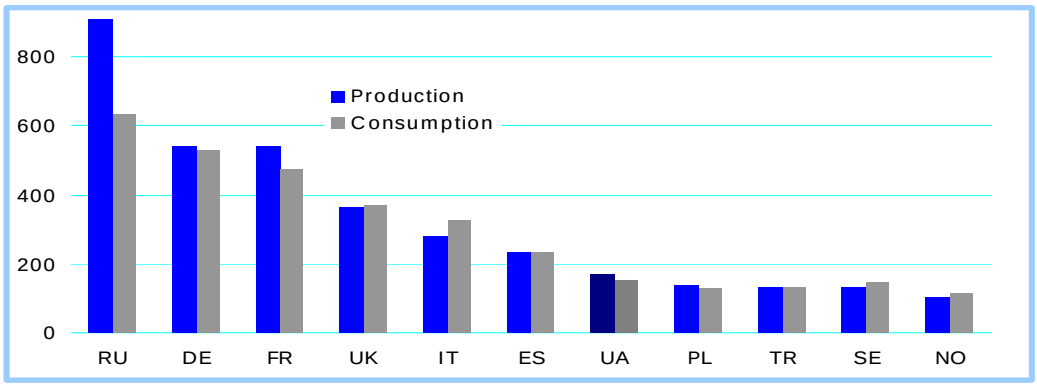
At the same time, we have shed some light on the financial reporting in the sector. **Revenues reported by many Oblenergos are misleading**, which makes their margins incomparable. We have eliminated accounting distortions, thereby putting the companies' financials on comparable footing and enabling adequate multiple comparisons.

Electricity Sector Overview

Ukraine ranks among Europe's largest producers and consumers of electricity. Yet in terms of the scale of its power industry, Ukraine trails behind such European leaders as Russia, Germany, and France. Rather, is on a par with Spain and Poland.

Major European Electricity Producers And Consumers, 2003, TWh

Ukraine is among top 10 producers of electricity in Europe…

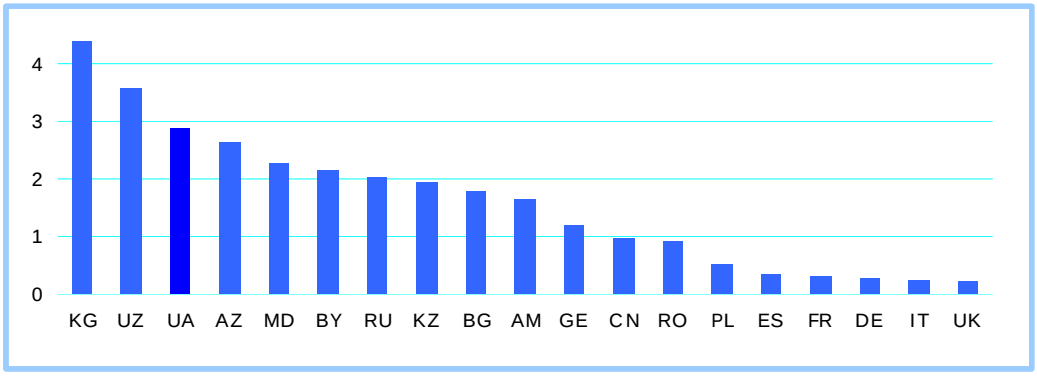


Source: International Energy Agency

In 2003, generating companies supplied a total of USD 20.53 bn worth of electricity to end users in Ukraine, or 7.95% of Ukraine's GDP. The high power intensity of Ukraine's GDP is the legacy of Soviet-era industries. With its rich natural gas and coal deposits, the Soviet Union had little regard for energy conservation programs.

Electric Power Intensity of GDP, 2001, KWh/USD

…this is mainly because of high level of electric intensity of production

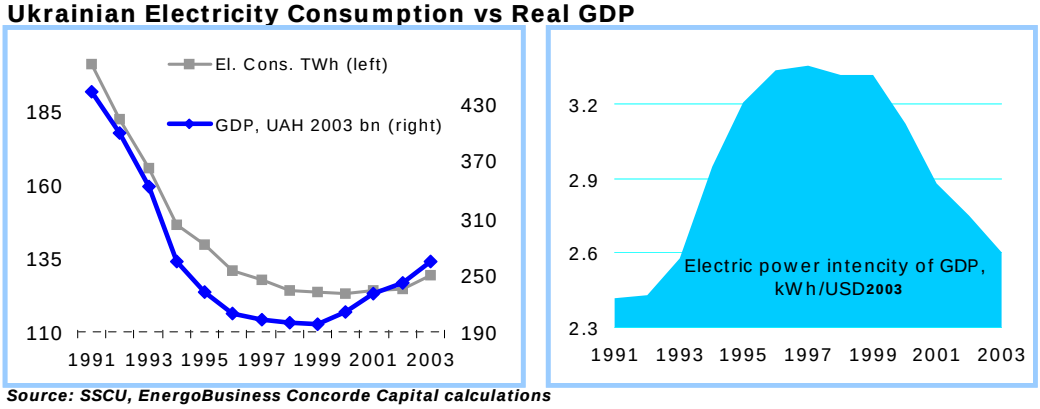


Source: World Bank

In the years of economic recession (1991-1999), the power intensity of GDP soared against the backdrop of shrinking economic output, as power consumption by households and energy-intensive industries declined on a lesser scale. Recent years have seen considerable improvement in this respect, primarily owing to robust growth in the less electricity-insensitive sectors of the economy and introduction of energy-conservation technologies.

Ukrainian Electricity Consumption vs Real GDP

Electric intensity of GDP has almost reduced to the pre-independence level



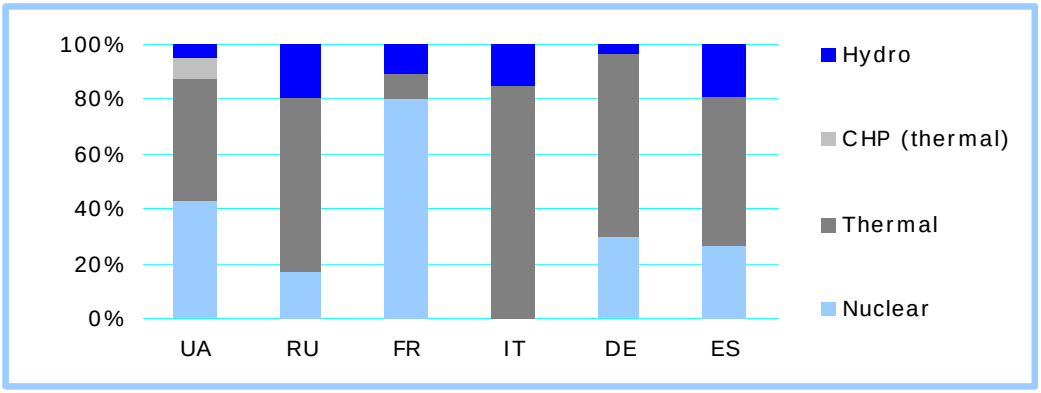
Source: SSCU, EnergoBusiness Concorde Capital calculations

Ukraine's power generation system is structured similarly to those of other countries: the base load demand is supplied by nuclear power plants, combined heat and power plants, and individual units of thermal power plants. Hydroelectric power plants and reserve units of heat power plants ensure stable electricity supply during peak demand hours. In addition, pump storage hydroelectric power plants serve to smooth the peak generation-consumption disparities.

Main generators in Ukraine are nuclear and heat power plants

Ukraine's main producers of electricity are nuclear power plants (NPP). There are four NPP's with 15 generation units (two of them launched in 2004) with a combined installed capacity of 13.8 GW. In addition there are 14 thermal power plants with 99 generation units and a production capacity of 28.6 GW. There are also a number of hydroelectric power plants (HPPs). Seven HPP's are located on the Dnipro river, one on the Dnister and have a combined capacity of 4.2 GW. In addition, there are about 20 small HPP's, several pump storage hydroelectric power plants (PSPs) with a combined capacity of 0.4 GW. Also, there are number of combined heat and power plants (CHPPs). These include 26 large, 53 medium, and about 1000 small CHPP's with a combined capacity of 7 GW.

Electricity Generation Breakdown, 2003



Source: UCTE, EnergoBusiness

Khmelnitsk and Rivne Nuclear Power Plant commissioned two new power units in 2004, boosting the nation's nuclear electricity production. Now Ukraine is generating an excessive amount of electricity, which has enabled stepping up its electricity exports. While before 2003 Ukraine imported electricity from Russia, since Dec. 2004 it is exporting a monthly 0.5 TWh of electricity to Russia.

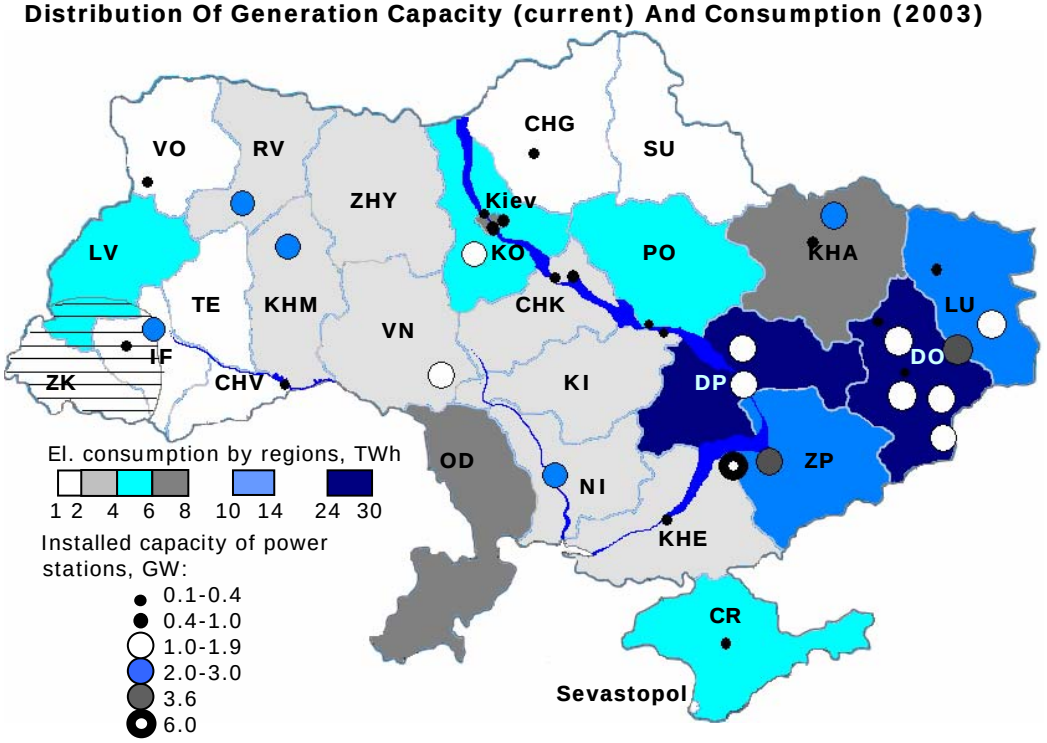
95% of electric grids are paralleled with Russia, and 5% - with Europe

Ukraine has two separate electricity networks: the Unified Energy System of Ukraine (UESU) and the Burshtyn Energy Island. The latter powers 4.5% of Ukraine's territory in the west and has been connected to the UCTE since July 2002 (see map below). The Burshtyn Island has three generating units: Burshtyn Thermal Plant, Kalush CHPP, and Tereblia Hydroelectric Power Plant. Their combined capacity is close to 2.5 GW. The remaining power plants are powering the UESU, which was synchronized with Russia's electricity network in August 2001.

The largest production capacities and major consumers of electricity are located in Ukraine's east. However, there is an imbalance between the country's east and west in terms of power generation and consumption. In 2003, Ukraine's ten western regions consumed 20.5 TWh of electricity, or 16.3% of total consumption in Ukraine, and generated 30.96 TWh of electricity, or 20.2% of the total output. This imbalance means additional strain on the largely obsolete equipment of the power transmission system.

Distribution Of Generation Capacity (current) And Consumption (2003)

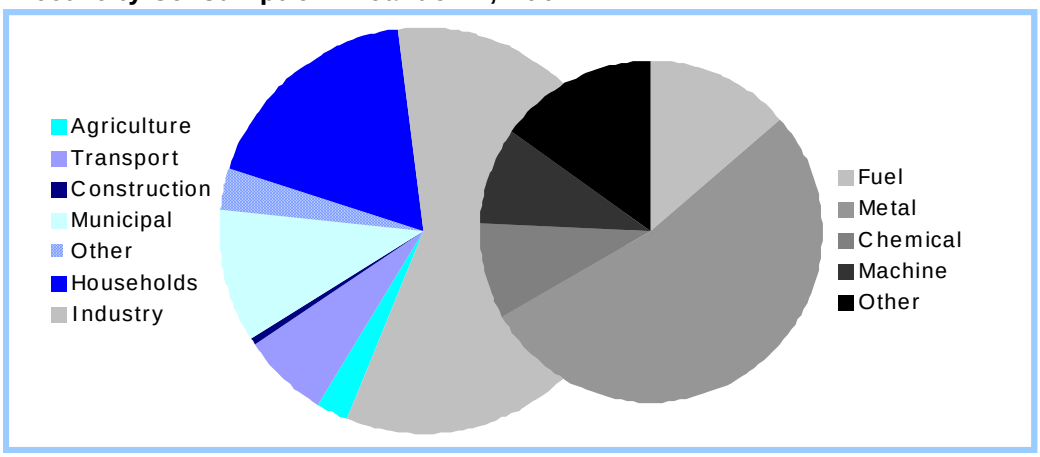
Interregional production-consumption disparity is observed in Ukraine



The major domestic consumers of electricity are industrial enterprises and households. Metallurgy, an electricity-intensive industry that makes up a majority of the nation's industrial output, is the largest consumer of domestic electricity.

Electricity Consumption Breakdown, 2004

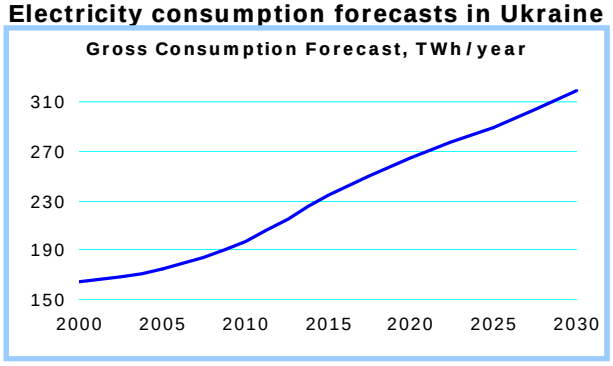
Metal producers are the largest electricity consumer group

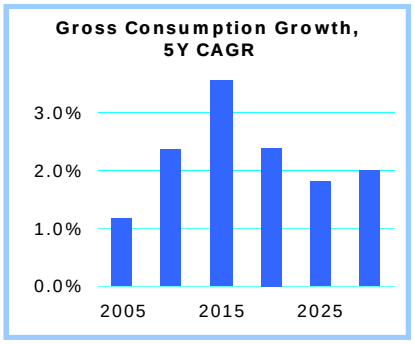


Source: UkrEnergo

Further increases in industrial output will stimulate growth of electricity consumption in Ukraine with an annual CAGR of 1.9% to 3.6% over the next 10 years.

Electricity consumption forecasts in Ukraine





Source: Electro-energetic Strategy Until 2030, Institute of Electric Energy

Sector Regulation

Similar to other countries, Ukraine's electricity sector is highly regulated

The Ukrainian electricity sector is a complex structure based on the interaction among power generators, distributors, and consumers, which makes it highly sensitive to changes in the balance of supply and demand. The electricity market is regulated by operators that fine-tune the operation of the whole sector. Since the electricity market is dominated by monopolists, securing fair competition in the market is a key priority for these regulatory bodies.

Three main operators control the electricity market, the National Electricity Regulatory Commission (NERC), UkrEnergo, and EnergoRynok.

NERC is the key regulator, which establishes the rules of the game

NERC is a state agency with the following functions:

- Licensing and monitoring electricity producers and suppliers
- Regulation of natural monopolies in the electricity sector
- Regulation of prices and rates
- Creating and enforcing rules for the distribution of money from special accounts (see page 17)

Ukrenergo guarantees the smooth operation of the energy system

UkrEnergo is a state-run company with the following functions:

- Centralized coordination and management of electricity flows
- Controlling the balance of electricity generation and consumption and electricity flows
- Ensures the safe operation of the UESU
- Delivering electricity from producers to buyers on the wholesale market

EnergoRynok is responsible for wholesale market operations

EnergoRynok is a state company affiliated with UkrEnergo. It is a wholesale market operator with the following key functions:

- Purchasing electricity from producers
- Arranging contracts for the purchase and delivery of electricity on the wholesale market
- Wholesale price setting
- Export of electricity
- Administration of accounts; monitoring payments and settlements in the wholesale market

The overall function of the NERC is to create and enforce market rules (rates, schedules of payments, etc.). UkrEnergo is responsible for maintaining the UESU and supplying high-voltage power. EnergoRynok determines the price of electricity on the wholesale market and the cost of electricity delivery.

Sector Ownership Structure: Generators

The government owns majority stakes in all generating companies except Vostokenergo, which is a privately owned limited liability company. Government stakes in the generation companies are now controlled by the NC ECU, with the exception of stakes in the four nuclear power plants. These are controlled by EnergoAtom, a state-run company.

Companies controlled by NC ECU:

- DniproEnergo - 76.04%
- DonbasEnergo - 85.77%
- ZahidEnergo - 70.10%
- CenterEnergo - 78.29%
- Dnister PSP - 87.40%
- UkrHydroEnergo (owns 8 HPPs) - 100%
- Kharkiv CHPP#5 - 100%
- Mykolayiv, Dnipro-Dzerzhynsk, Kherson, Odessa CHPPs – 100%

All the thermal electricity generation companies except one are under state control

The controlling stake in VostokEnergo belongs to the Donetsk-based business group SCM.

The ownership structure of regional distribution companies is analyzed below (pps 22-23).

Judging by Ukraine's long-term energy strategy, the main privatization wave in this sector is expected between 2010 and 2020 (table below). However, we expect privatization start as soon as the sector resolves its key problem: debts. To make these companies more attractive to investors, some fundamental changes are expected to take place in the sector. These changes are expected to increase the profitability of energy companies and stimulate competition in the sector. In addition to finding a solution to the sector's debt problems, these changes will involve increasing electricity tariffs, reducing industry operating costs and power losses, and market liberalization. Specifically, this will involve replacing the system of tariffs regulation with one of direct contracts. This change is expected to begin in 2008. It is our hope that the positive changes expected in the energy sector, compbined with the election of the new president will bring about improvements well ahead of 2010.

Investment Sources In the Energy Sector, 2005-2030, USD bn

	2005-2010	2011-2015	2016-2020	2021-2025	2026-2030
Investment needs	**6.51**	**10.44**	**13.85**	**13.1**	**12.72**
State investments:	**3.55**	**5.43**	**6.05**	**1.84**	**2.12**
Price surcharge revenues	3.55	4.2	2.78	0	0
Privatization revenues	0	1.19	3.16	1.62	1.9
Reinvesting dividends	0	0.04	0.11	0.22	0.22
Other sources:					
Reinvesting profit	2.9	4.84	7.51	10	9
Other sources	0.06	0.17	0.29	1.26	1.6

Source: Ukrainian Energy Strategy Until 2030, Ukrainian Academy of Sciences

Wholesale Market: Regulation And Pricing

Most of electricity produced is traded at the wholesale market

Electricity generated by all Ukrainian power plants, with the exception of CHPP's with capacities below 20 MW, is traded on the wholesale electricity market. The remaining electricity is sold directly to local distributors or consumers.

Generating companies are distributed into the regulated-tariff generators, and free tariff generators. Regulated tariff generators (NPPs, HPPs, Wind PPs, and CHPPs) supply electricity to the wholesale market at a pre-determined price.

Average Fixed Rates For Electricity Supplied To EnergoRynok, US¢/kWh

All the tariffs for producers are fixed…

	2001	2002	2003	7m 2004
Hydro PPs & PSPPs* (3 Co's)	0.57	0.57	0.70	0.61
"Energoatom" (Nuclear PPs)	1.53	1.33	1.21	1.26
CHPPs	2.15	2.26	2.44	2.47
Wind PPs	3.33	3.23	3.14	3.13

Source: EnergoRynok
**PSPP- pump storage (hydro) power plants*

The free tariff generators are six thermal power generating companies:

Free-Tariff Generators

Company	Number of PPs	Total gen.capacity, GW
DniproEnergo	3	8.16
CenterEnergo	3	7.55
ZahidEnergo	3	4.4
VostokEnergo	3	4.06
DonbassEnergo	2	3.2
Kharkiv CHPP No.5	1	0.47

Source: EnergoRynok

… except for six companies.

They are called free-tariff producers because, unlike other generating companies, they determine the rates for the electricity produced by their own. Their tariff includes electricity supply charge, working capacity charge, maneuverability charge, over- and under-capacity utilization charges, and a charge for starting up the power unit.

Price Components For Free-Tariff Generators, 7m 2004 Average, US¢

Total	Electric Energy	Working Capacity	Maneuver-ability	Over-Utilization	Units Start	Special Surcharge	Fines
2.462	1.938	0.386	0.253	0.008	0.026	0.045	-0.015

Source: EnergoRynok

Six companies operate in a competitive environment

All free-tariff producers have reserve capacities, which are ready to start supplying electriicy in case of its shortage. They supply the Unified Energy System of Ukraine (UESU) on the competitive basis. That is, if excess electricity power supply exists, some of the thermal units are disconnected. Notably, they compete for the right to remain connected to the UESU. The company that charges the highest price is the first to be disconnected. Competition among these producers is the reason why they are allowed to set their electricity rates as they see fit. In practice, however, the freedom of thermal generators to set prices is limited by the regulator. According to the regulator the price should be "reasonable," otherwise, the company can be punished for dumping or for collusion.

EnergoRynok sets an hourly price for electricity supplied to the wholesale market. Wholesale price consists of the price base and surcharges. The base for average wholesale price is calculated as a weighted average of the prices of all producers, exporters, and importers.

Hourly wholesale prices are calculated based on the average price for producers, importers and exporters…

Wholesale Price Base, US¢

	2001	2002	2003	7m 2004
Regulated rate producers	1.86	1.85	1.96	2.11
Free rate producers	2.06	2.03	2.13	2.46
Export price	2.27	2.09	2.00	2.20
Average	**1.88**	**1.86**	**1.97**	**2.14**

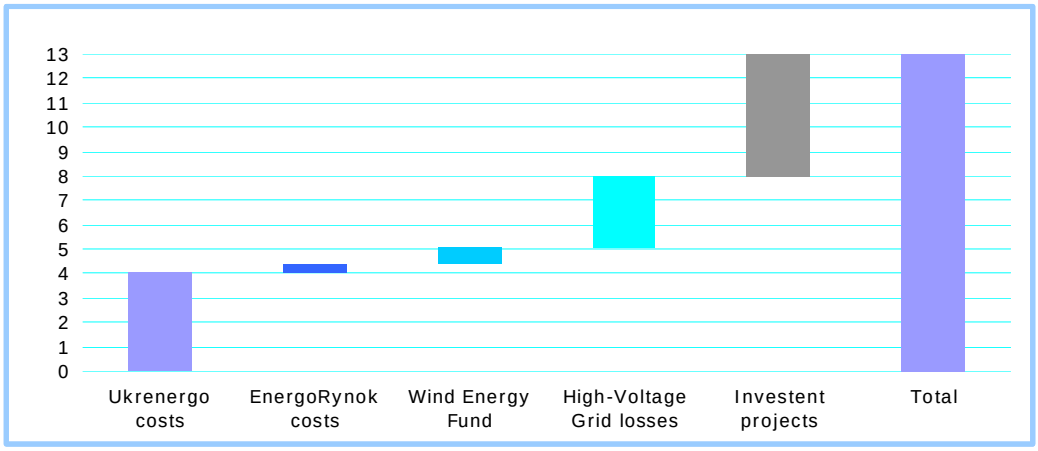
Source: EnergoRynok

… plus a surcharge

A price surcharge covers the costs of wholesale market operators (UkrEnergo and EnergoRynok), some other costs, and allocations to the special funds. Since July 2003, the surcharge includes the costs of government-funded investment programs – the construction of new power units at NPPs and Hydro PSPs, which totaled USD 0.32 bn in 2003. The surcharge is evenly distributed among electricity tariffs charged between 6 am and 11 pm, which discriminates day and night tariffs. On average, the surcharge came to 13% of the price in 2003.

Addition of investment surcharge in mid 2003 has raised total surcharge significantly

Wholesale Market Price Surcharge Structure, %, 2003



Source: EnergoRynok

Retail Market

All buyers in the wholesale electricity market are classed into two groups: regulated-tariff electricity retailers and independent (non-regulated-tariff) retailers.

Each oblast has its own Oblenergo

Ukraine is divided into 27 administrative territories, including 24 regions (oblasts), the Crimean Autonomous Republic, the cities of Kyiv and Sevastopol. Every territory, except for the two easternmost regions, has a monopoly supplier known as the Oblenergo. Aside from Oblenergos, the remaining regional regulated-tariff suppliers are private companies: Service-Invest and EGE EnergoUgol in Donetsk region, and Luhansk Energy Union in Luhansk region. Since these companies are monopolists in their respective areas, the rates they charge for electricity are subject to government regulation.

Aside from regional monopolists, there are industry-specific regulated-tariff suppliers, such as the state company UkrEnergoUgol, established in 2003 to supply electricity to coal mines in Donetsk, Luhansk, Dinpropetrovsk, Kirovohrad, Lviv, and Volyn regions. Another industry-specific company is Southwestern Railroads, a regional division of the Ukrainian monopolist UkrZaliznytsia Ukrainian Railroads.

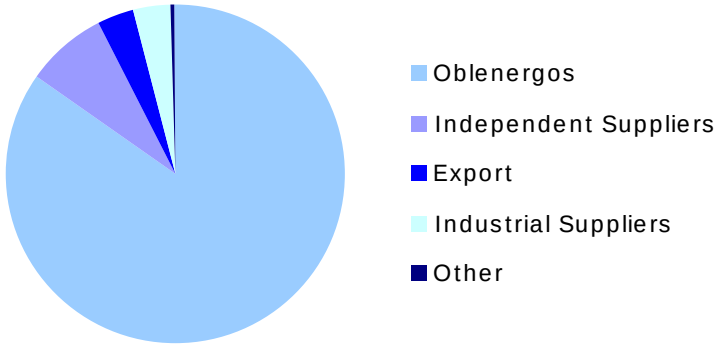
Independent suppliers are free to set their own tariffs

Independent electricity retailers are companies licensed to supply limited amounts of electricity at unregulated rates. They sign contracts with EnergoRynok, from which they purchase electricity at a mutually agreed price, and supply it to consumers at a mutually agreed rate.

Regulated-tariff suppliers distribute most of the electricity available on the wholesale market.

Regulated-tariff suppliers are key operators on the retail market

Distributors Of Electricity, Share Of Physical Supply, 2003



Source: EnergoBusiness

Retail Market Pricing

Tariffs for Oblenergos are determined by the NERC…

Independent retailers are allowed to independently determine tariffs for the electricity they supply to consumers, while regulated-tariff retailers supply electricity at tariffs determined by the National Electricity Regulatory Company (NERC).

NERC calculations of retail rates for regulated-tariff suppliers include three components:

Retail_Tariff = Purchase_Component +
(Transmission_Tariff + Delivery_Tariff)

The expression in brackets represents a *supplier's tariff*. The supplier's tariff for regulated-tariff retailers is calculated on a *cost plus* basis. Profit allowance is conditioned upon the fulfillment of certain conditions.

The regulator calculates electricity tariffs in such a way as to offset the following costs of the supplier:

… to offset the costs of suppliers,

- Estimated cost of electricity generation, if the company owns generating units
- Estimated cost of electricity transmission, including electricity losses in transmission and the cost of electricity transformation
- Estimated cost of delivering electricity to consumers
- Estimated fixed costs, less depreciation
- Estimated annual wage fund

The tariffs also include a profit margin:

…, allow for a payback from current investments

- Estimated **profit from investments in production capacities**. If a company *has invested its own funds*, the profit from investments is calculated as:

  Investment Base x 17%

  If the company *has invested loan funds*, the profit is calculated as:

  Investment Base x Average (17% ; loan interest rate)

  (However, it may not exceed 17%; this restriction is intended to motivate companies to take out cheaper loans). The production investment base is calculated as investments in production facilities during the previous periods, less their depreciation, plus expected investments during the current period.

… and for a fixed profitability from strategic investments, if the company was privatized

- Estimated **owner's profit**, if the company has been privatized. Profit is calculated as:

  Profit Base x Profitability Ratio

  The profitability ratio has been set at 17% until 2008; between 2008 and 2013 it will be determined individually by the NERC, but shall not be lower than 11%. The profit base is an implied MCap of the company in line with the privatization auction results (in USD), but shall not exceed 150% of the starting auction price. As a result, the profitability of companies sold at a higher price in the privatization auction is effectively reduced compared to others, such as 12.75% to MCap for ZhytomyrOE and 8.8% for SevastopolEnergo.

The tariff includes the above cost and profit components on condition that:

1) The company in question pays in full for the electricity it receives, and
2) That it has signed a debt restructuring agreement with EnergoRynok. (This condition applies only to Oblenergos privatized in 2001).

Tariffs may be reduced, if the company breaks payment discipline

If the company fails to meet its obligations, the NERC may reduce the tariff depending on the company's monthly performance:

- If the company in question has failed to pay in full for electricity supplied to it in the previous month, the owner's profit will be reduced proportionately, but by no more than 30%.
- If the company in question has signed a debt restructuring agreement with EnergoRynok but has failed to comply with it, the tariff will be changed in such

a way as to reduce the owner's profit by 5% in the next month.

Two supplier's tariffs are differentiated:

The elements of the **supplier's tariff** are as follows:

- **for transmission**
- *Transmission tariff:* This is calculated to offset the cost of electricity transmission and transformation. There are separate rates for electricity transmission to high-voltage consumers (35-154 kV) and low-voltage consumers (below 10 kV). The cost of transmission to low-voltage consumers is higher because transforming high-voltage electricity bought on the wholesale market (220 kV) into low-voltage electricity involves extra costs.
- **for supply to end user**
- *Delivery tariff:* This tariff is calculated to offset costs relating to electricity delivery to end consumers. Electricity delivery is classed into delivery to households (more costly) and delivery to other types of consumers.

Fixed costs are covered by tariffs on a *pro rata* basis

All fixed costs (and profits, if such are allowed) of regulated-tariff suppliers are also included into each of the above tariffs on a proportional basis.

The NERC calculates the supplier's tariff based on cost and investment estimates submitted by every company. The tariff may be raised at the request of the Oblenergo, but only if it complies with the payment and debt restructuring agreements.

In addition, transmission or delivery tariffs can be revised, if the actual level of electricity supplies differs more than 5% from the forecast.

Tariff regulation will be changed in the mid-term

The classification into independent and regulated-tariff (monopolist) suppliers is temporary and is part of a gradual transition to a bilateral contract system in the electricity market in line with a 2002 government plan. Yet the bilateral contract system will not be around for another five to seven years, since it requires significant legislative and technical preparations.

Consumer tariffs

The NERC is setting this rate based on the electricity voltage (class) and the type of consumer. The table below shows an example of consumers' rates:

Tariffs For Khmelnitskoblenergo Consumers as of Dec 1, 2004, US¢

Households:		
With gas stoves	2.9	
Rural locations	2.7	
With electric stoves	2.3	
Other Consumers:	**I class (35-154 kV)**	**II class (0.4-10 kV)**
Industrial	3.8	6.0
Agricultural	3.8	6.0
Railway	3.8	6.0
Non-Industrial	3.8	6.0
City Transport	2.9	2.9

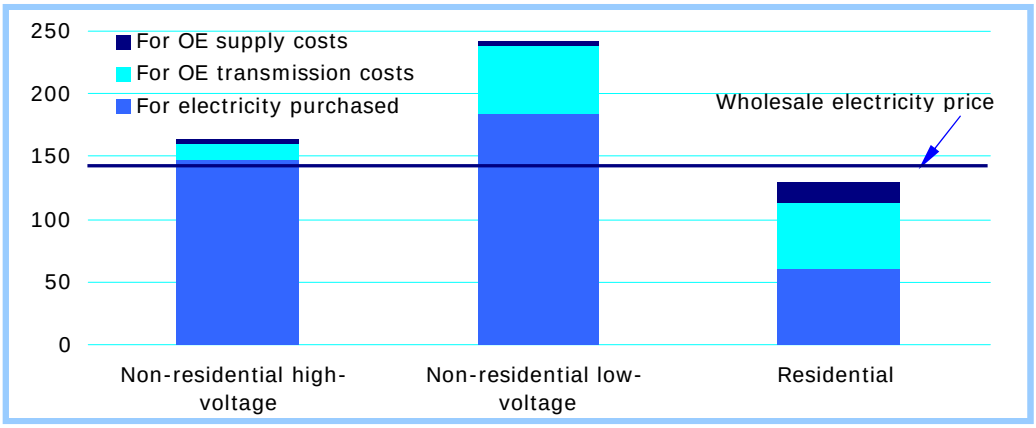
Source: Khmelnitskoblenergo

Households pay a predetermined rate for every consumed kWh of electricity. Other consumers pay rates calculated by the NERC on a monthly basis, which factor in the costs of Oblenergos that are not covered by households. The mechanism of cross-subsidization is discussed in detail below.

A low tariff for households implies cross subsidization

The current rate ceiling for households, which has been fixed at 130 UAH/MWh out of social considerations, is below the wholesale market price of 139 UAH/MWh. The residential tariff structure shifts part of the cost of electricity to consumers in the non-residential segment.

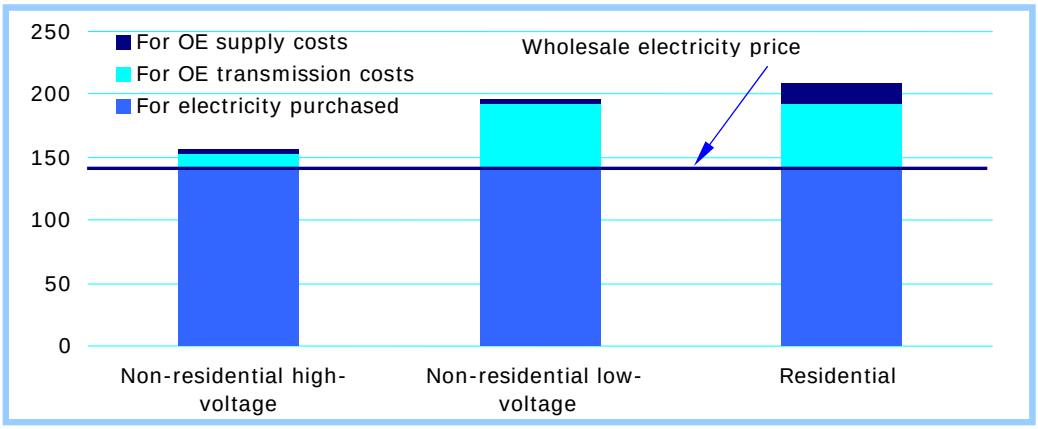
Average Consumer Tariff Breakdown (Nov.04, UAH/MWh, w/o VAT)



Source: NERC, EnergoBusiness, Concorde Capital estimations

We have simulated an equitable retail rate for electricity for every group of consumers. In this hypothetical tariff model, the cost component allocated for wholesale electricity purchases corresponds to the wholesale market price.

Consumer Tariff Without Cross Subsidization (Simulation)



Source: Concorde Capital

Cross-subsidization creates room for independent suppliers

Our analysis shows that without cross-subsidization, average tariffs for low-voltage industrial consumers would be 19% lower than they are now. Such an inflated rate for non-residential consumers is the reason for the high earnings of unregulated-tariff suppliers, as they are not obliged to supply households. Even though independent suppliers purchase electricity on the wholesale market at a 8-15% higher price than Oblenergos do, they still can set retail price which will be profitable for them and attractive for industrial consumers.

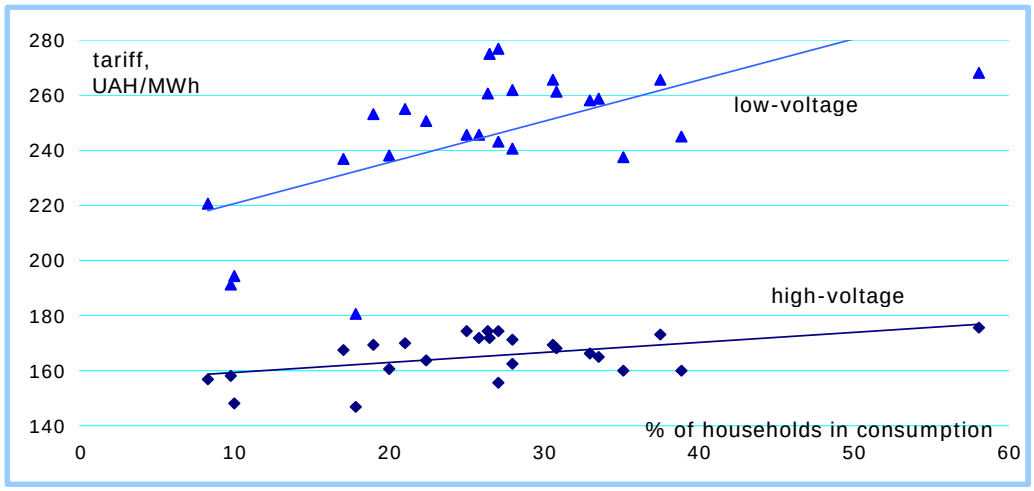
Another conclusion: the electricity rate for households is clearly 60% lower than its fair value. Furthermore, unlike in the West, households in Ukraine pay less for electricity than industrial consumers (see graph overleaf).

Independent suppliers operating in industrial regions are not very profitable

Consequently, regions with a lower percentage of households in the electricity consumption structure have lower rates for non-residential consumers, because the burden of cross-subsidization is shouldered by a larger number of non-residential consumers. Experience has shown that this is in fact so, as suggested by the chart below.

Therefore, Oblenergos operating in more industrialized regions have lower tariffs for industrial consumers, which makes large enterprises less likely to switch to independent suppliers.

Household In Consumption, % vs Non-Residential Retail Tariffs, Nov. 2004



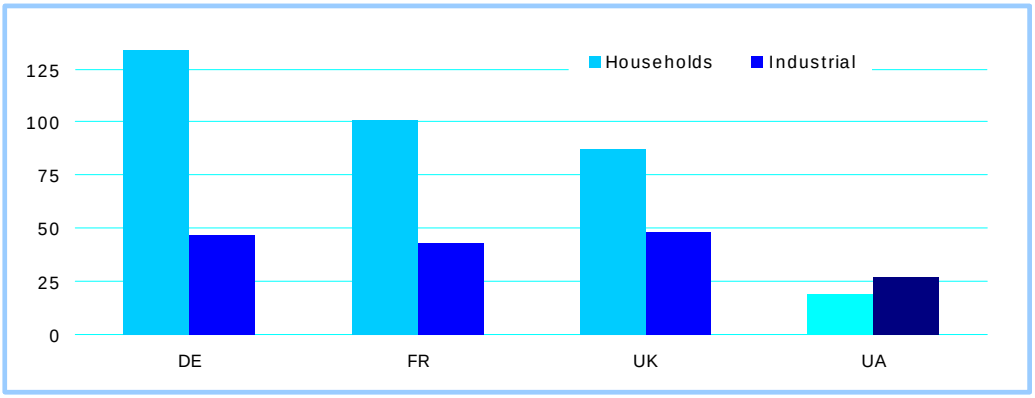
Source: NERC, EnergoBusiness, company data

Two industrial companies, Zaporizhia Aluminum Plant and Zaporizhia Titanium Plant, buy electricity at preferential rates. The cost of ZaporizhiaOblenergo's power supplies to these two companies is cross-subsidized at the expense of all the remaining electricity consumers in Ukraine, which are charged an extra price for electricity bought in the wholesale market.

Expected adjustment of "nuclear" costs will raise wholesale price

Retail electricity prices in Ukraine are unjustifiably lower than those in the West. Nuclear energy is more expensive than thermal power in EU member states, since the price of nuclear energy in Ukraine does not factor in the servicing costs for nuclear power units and radioactive waste disposal. Therefore, the costs of nuclear power generation can potentially raise the wholesale electricity price, resulting in higher retail electricity rates.

Average Electricity Price Comparison, 2003, USD/MWh



Source: NERC

Sector profitability will improve after retail tariff liberalization

Another reason behind the lower retail rates in Ukraine is strict regulation by NERC, which caps profitability margin of utilities. The NERC imposes strict limits on all costs that are covered by the supplier's tariff, and profits generated by electricity producers and suppliers. Increasing electricity sector profitability between 2010 and 2020 is a key component of Ukraine's long-term energy sector strategy. A necessary condition for profitability growth will be the removal of retail tariff growth restrictions.

Cash Flow Peculiarities

In 2000, cash from consumers began to accumulate at accounts not controlled by Oblenergos…

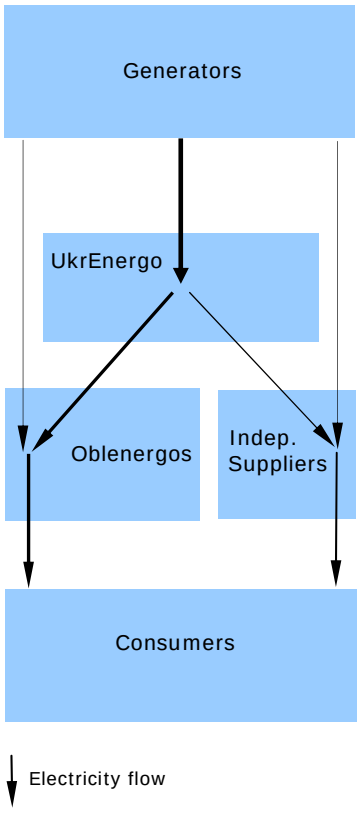
The following payment scheme is in place for regulated-rate suppliers (see the scheme below). Consumers pay for electricity into a special Oblenergo *distributive* account. The account is controlled by an authorized bank, currently Prominvestbank. The company cannot use the money paid into the distributive account. The bank transfers the funds from the distributive account according to an *algorithm* established by the NERC to:

- The Oblenergo's own account – the funds earned by the supplier (as per the supplier's tariff).
- The *Distributive* account of the wholesale market operator – payment for the electricity supplied from the wholesale market.

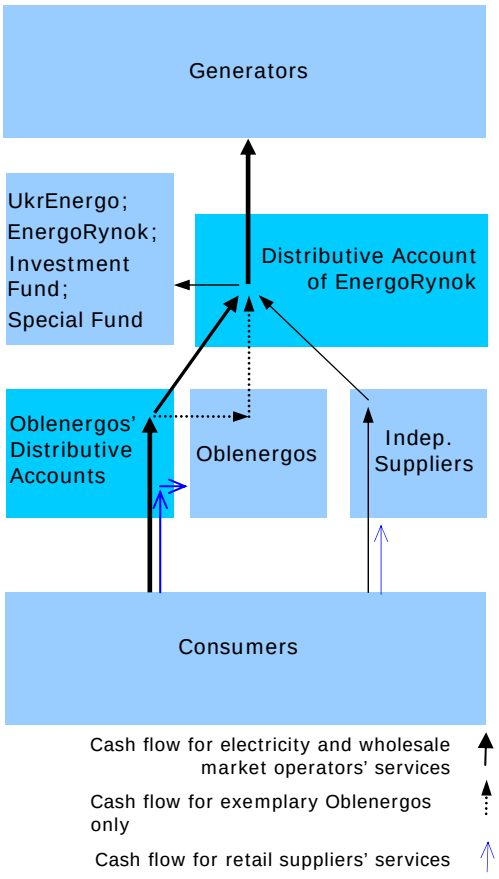
… but not in the case of "exemplary" utilities

An exception is made for companies which have an agreement on debt restructuring with EnergoRynok, pay 100% for electricity purchased, and have determined a schedule of payment with EnrgoRynok. These companies, which we classify as "exemplary", receive 100% of the funds paid by consumers into the distributive account (see table on page 32). However, to receive full payment they must fulfil all their obligations from the previous month.

Electricity Flow Scheme



Cash Flow Scheme

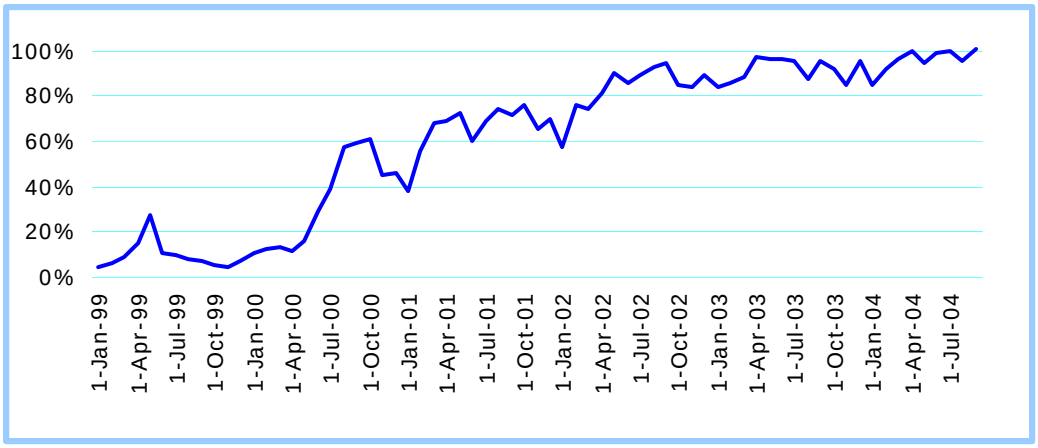


Note: thicker arrow corresponds to larger flow

This payment pattern was introduced in 2000 to improve payment discipline in the market and make money transfers more transparent. Before this scheme was introduced, receipts from consumers accumulated on the accounts of Oblenergos, and payments to the dispatcher and wholesale market operator were significantly delayed. Ever since distributive accounts were introduced in June 2000, payment levels have increased dramatically.

Innovation has improved payment discipline

Electricity Payments

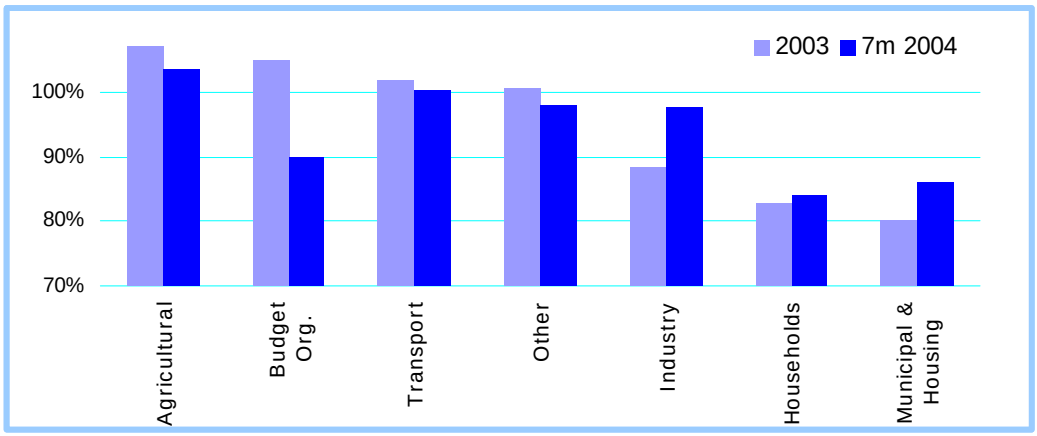


Source: EnergoRynok

Since last year distributors have been free to stop supplying electricity to debtors

Despite the overall improvement in payments for electricity, individual groups of consumers show inadequate payment discipline.

Electricity Payments: Breakdown By Type Of Consumers



Source: EnergoRynok

Last year's increase in payment levels by industrial consumers was due to a law enabling distributors to cut off power supply to consumers for nonpayment, provided this will not cause any disasters. The law took effect starting January 1, 2004

Households traditionally delay payments

The low level of payment collection from households is due to the high cost of measures to enforce the collection of payments and the complex procedure of punishing nonpaying consumers. Municipal organizations tend to delay payments as they highly depend on households for their receipts. The recent decline in the level of payments by public organizations suggests problems with their funding from the state budget. In addition, owing to the social role of such institutions, municipal authorities try to prevent power cuts to them, which does not stimulate payment discipline improvement.

Industrial enterprises on the Donets-River basin are low-discipline payers

Low payment discipline by industrial consumers is due to the fact that most industrial facilities are located in Ukraine's east, where late payments for electricity are endemic. This is clearly seen from the payment record of companies located in the Donetsk and Luhansk regions. Distribution companies in Ukraine's east accounted for 68% of outstanding debts for electricity sold in the wholesale market in 2003. After the eleven months of 2004, distribution companies in the Donetsk and Luhansk regions accounted for 79% of outstanding debts for electricity sold through the wholesale market.

Late payments are a headache for Donetsk and Luhansk distributors

Electricity suppliers with lowest payment discipline, 2003

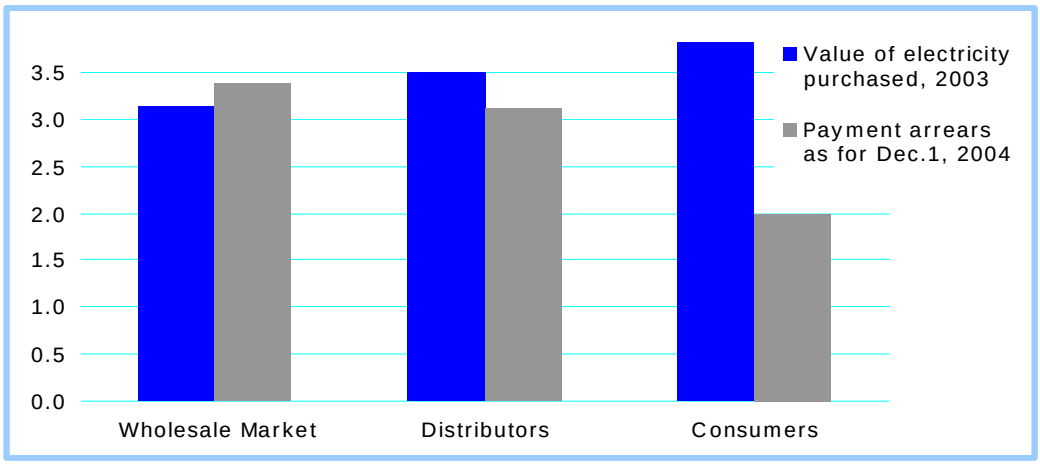
Company	Region	Payment for electricity 2003	Payment for electricity 11m2004
DonetskOE	Donetsk	71%	77%
Donetsk-Ugol	Donetsk	73%	-*
Luhansk Energy Union	Luhansk	77%	89%
Ukr-Enego-Ugol	Donetsk, Luhansk	83%	80%
ZakarpatiaOE	Zakarpatia	83%	83%
MykolayivOE	Mykolayiv	85%	86%
CrimeaEnergo	Crimea Rep	87%	96%
ChernivtsiOE	Cernivtsi	87%	89%
EGE Energo-Ugol	Donetsk	88%	102%

Source: EnergoBusiness, Concorde Capital estimates

*** Donetsk-Ugol stopped electricity supplies in mid-2003***

The poor payment records in the mid-1990s made electricity debts the most urgent problem in the power industry, as the debts of energy distributors were equal to the annual trading volume on the wholesale market.

Debt vs Electricity Purchased, USD bn



Source: Fuel and Energy Ministry, Concorde Capital estimates

In the electricity sector, debts accumulate from the bottom up. This is due to the fact that at every stage of the power supply chain companies failed to pay to companies located upstream, because of intrinsic low payment discipline and debts accumulating downstream along the chain.

In addition to debts, the wholesale market operator distributors accumulated VAT debts to the state. At the beginning of 2003, VAT was imposed on electricity suppliers at the time of delivery, but not after the consumers paid for electricity.

Accumulated overdue payables are a potential reason for company bankruptcy

A high debt volume carries the risk of bankruptcy. There were two cases in Ukraine when companies had their assets seized for debts. In the first case, the generation company DonbasEnergo sold three of its five thermal power plants. In the other case, the distribution company LuhanskOblenego had all of its assets seized.

All attempts to solve this problem, i.e., to protect the companies from lawsuits and restructure their debts haven proved futile. The increase in company's protection from bankruptcy emerged in 2004 with the creation of the National Company "Energy Company of Ukraine" (NC ECU). This entity combines all state-held assets of thermal and hydro power generation and electricity distribution, and has significant lobbying power. Recent dismissal of the president of NC ECU, a successful crisis manager Oleg Dubina, puts a question mark about future development of state energy holding. Person of new NC ECU head will be important in this regard.

Debts and the threat of bankruptcy are main obstacles for continued privatization of the industry.

The new president's team and the NC ECU are expected to solve the industry's debt problem

The EBRD's demand for a solution to the problem of electricity sector debts and the powerful lobby of the NC ECU state holding company, increases our expectations that the sector's debt problems will be resolved this year. The administrative team brought in by new President Viktor Yushchenko is also expected to help, as they were able to make positive improvements in the energy sector during his tenure in 2000. This will in turn make Ukraine's energy companies more attractive to investors.

Oblenergos

Most Oblenergos are regional monopolies

The regional electricity distribution companies are herein referred to as Oblenergos. We also refer to the monopolistic distributors in the cities of Kiev and Sevastopol (called Kievenergo and Sevastopolenergo, respectively) and in Autonomous Crimea Republic (Krymenergo) as Oblenergos.

An oblenergo monopoly has been completely broken in Donets-River basin

Oblenergos are monopoly suppliers of electricity to consumers in the regions, with the exception of Donetsk and Luhansk region. Aside from DonetskOE, Donetsk region has three more regulated-rate suppliers. EGE EnergoUgol supplies one-half of Donetsk city and eight towns in Donetsk region; UkrEnergoUgol supplies energy to coal mines; and Service-Invest provides power for metallurgical plants in the Donetsk region. The Luhansk Energy Union Ltd has been a monopoly supplier of electricity in the Luhansk region since April 2002. Luhansk Energy Union Ltd manages the assets of LuhanskOE. The latter has lost the license to supply electricity because of its bankruptcy. In addition, UkrEnergoUgol has reinforced its positions in Luhansk region where coal mining is the main industry.

Due to their monopoly position, the activities of Oblenergos are highly regulated. In addition, their performance is closely related to the specifics of regional supply that cannot be changed by the company, such as comsumer structure, weather conditions.

Privatization And Ownership

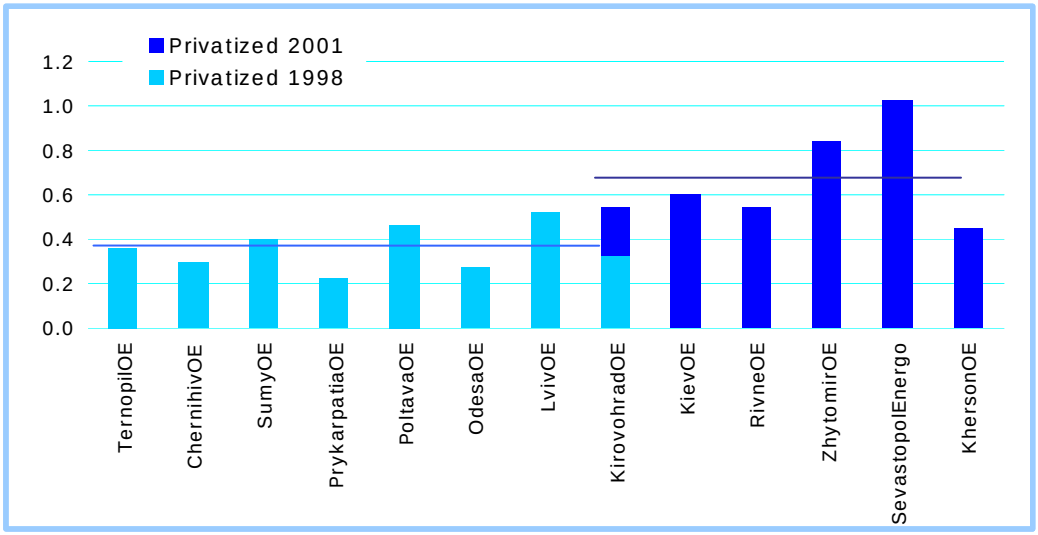
None of the Oblenergos are fully state owned. The government began their privatization in 1995, when shares were offered to staff members on preferential terms. The first wave of privatization tenders came in 1997 and 1998, when minority stakes were sold (see table below).

The second wave of Oblenergo privatization tenders came in 2001, when between 51% and 75% of shares in six companies were sold. These tenders differed from the previous for two reasons:

- The Oblenergos privatized in 2001 were sold at a higher price than those sold in the 1998 tenders
- Bidders in the 2001 tenders sought to establish control over the companies and not to resell them

MCap at Privatization/Sales2003(adjusted)*

Privatization in 2001 was more successful for the sate compared than in 1998



Source: Imepower Group, EnergoBusiness, Concorde Capital estimates
** For sales adjustments, see pps 33-35*
Note: LuhanskOE is not included into the sample, as it has lost supply license in 2001

The difference between market capitalization after the tenders held in 1998 and 2001 is due to the premium for control, as well as the fact that the 2001 tenders were more transparent.

Oblenergos Privatization Summary

1998	Stake, %	Price, UAH mn Initial	Tender	Implied Mcap, USD mn	Winner name
KirovohradOE	20	6.0	7.6	19.54	1st Privatiz. Fund
TernopilOE	20	3.1	5.0	12.90	Prodexport
ChernihivOE	35	10.4	14.0	18.88	Avto-Alliance
SumyOE	36	16.0	18.6	24.37	Arsenal Stock Co
PrykarpatOE	35	9.1	9.4	12.70	Ukrainian Securities
LuganskOE	35	18.2	25.3	34.05	Verona Plus
PoltavaOE	36	19.9	44.4	58.11	Contrast Holdings
OdesaOE	35	18.2	26.9	36.25	FS Trading LLC
LvivOE	35	17.0	40.8	54.92	Privatbank
2001					
KievOE	75	174	249	62.06	AES
RivneOE	75	101	126	31.40	AES
ZhytomirOE	75	95	190	47.35	VSE
SevastopolEnergo	70	35	101	26.97	VSE
KhersonOE	65	112	112	32.21	VSE
KirovohradOE	51	87	88	32.25	VSE

Source: Imepower Group, Concorde Capital estimates

AES is an energy company incorporated in the US. It has operations in 27 countries. Companies privatized by AES are among the best performing companies in the Ukrainian market. In 2003, KievOblenergo changed its status from open joint-stock to closed joint-stock company, which has made its shares unavailable to outside investors. Rivneenergo will also be a closed joint-stock company in the near future.

VSE (Vyshodoslovenske Energeticte Zavody) is a Slovak company that appears to have ties with a Ukrainian business group, led by Grigory Surkis, and a Russian group, controlled by Alexander Babakov and Maxim Kurochkin).

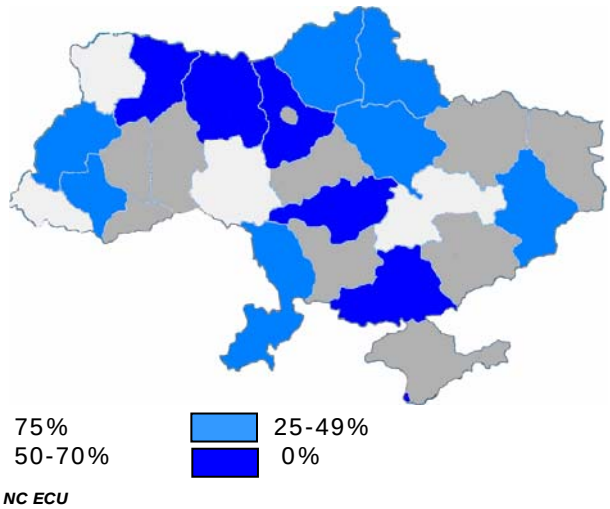
In 2004, the National Company "Energy Company of Ukraine" (NC ECU) was established to consolidate government's assets in the energy sector and lobby for the interests of state companies. This is a good sign for state-run regional distributors that face the problem of debts or losses. However, the future of the state holding is not clear at the moment, as team of new President questions its expediency.

Block stakes in six and controlling stakes in fifteen state-owned regional electricity distribution companies were transferred to the NC ECU in the summer of 2004:

NC ECU has a controlling stake in 15 out of 27 Oblenergos

- VinnitsaOE – 75%
- VolynOE – 75%
- DniproOE – 65.06%
- ZakarpatiaOE – 75%
- ZaporizhiaOE – 60.25%
- KievEnergo – 50% + 1
- CrimeaEnergo – 70%
- LvivOE – 26.98%
- LuhanskOE – 60.06%
- MykolaivOE – 70%
- OdesaaOE – 25.01%
- PoltavaOE – 25% + 1
- PrykarpatOE – 25.02%
- SumyOE – 25% +1
- TernopilOE – 51%
- KharkivOE – 65%
- KhmelnitskOE – 70.01%
- CharkasyOE – 46%
- ChernivtsiOE – 70%
- ChernihivOE – 25% + 1

State Ownership: Geographical Breakdown



Source: NC ECU

Five groups of influence in the energy sector are believed to be:

NC ECU can become the most powerful group

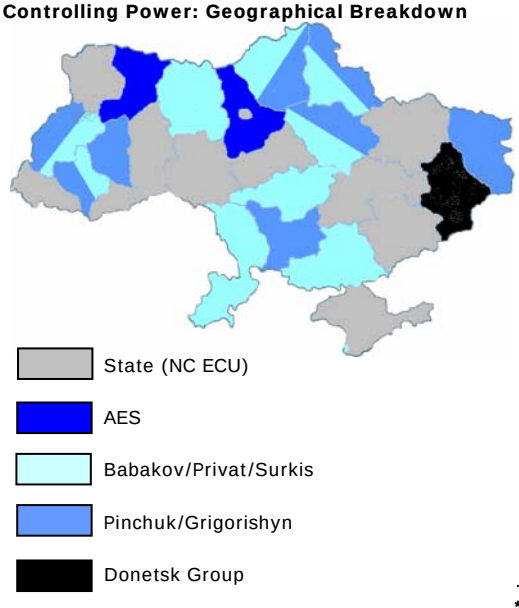
- **NC ECU**: A state-run company. Unlike the generation companies, which hardly will benefit from subordination to NC ECU (as they are competitors), Oblenergos will benefit from establishing a powerful holding that can lobby their interests. If NC ECU is not liquidated by the team of new President, it will be able to become a major player in the energy sector: much will depend on the head of NC ECU.
- **AES:** Through its affiliates has full control of two Oblenergos privatized in 2001.
- **Donetsk Group**: This group is controlled by the former Fuel and Energy Minister, and the president of the Donetsk business group SCM. They control two regulated-tariff electricity retailers (Service-Invest and EGE EnergoUgol) and a number of free-rate suppliers in Donetsk region, which are steadily ousting DonetskOE.
- **Babakov-Surkis/(Privat) Group**: Controls four companies privatized by VSE company and has some degree of control over other companies where the group has minority or blocking stakes. Whereas three out of the four companies privatized in 2001 are showing good results, KhersonOE is underperforming. With Yushchenko in power, this group is loosing some of its positions in the market. Recent trends prompt that Surkis can quit energy business, selling his assets to Privat Group.
- **Pinchuk-Grigorishyn Group**: This group managed to consolidate minority or controlling stakes in more than 10 companies, but has been *de facto* ousted by the Surkis Group. Now it controls only four Oblenergos and the Luhansk Energy Union. The group may reclaim its losses under Yuschenko.

In several Oblenergos a change in controlling power is expected

The conflict between the groups of Grigorishyn and Surkis struggling to establish control of PrykarpatOE, LvivOE, SumyOE, PoltavaOE and ChernihivOE (marked by two colours in the fugure below) – the profitable Oblenergos that have yet to be officially privatized, has adversely affected their corporate governance. The conflict first erupted in 2001, with Grigorishyn losing some of his influence over these companies. The conflict is expected to intensify in the near future. In particular, Grigorishyn is tightening his grip on SumyOblenergo, and is rumored to be trying to oust Surkis and Babakov from all the conflict Oblenergos.

Aside from these groups, there is the state-run company **UkrEnergoUgol**, which is controlled by the Fuel and Energy Ministry and supplies electricity at a regulated rate. It was established in 2003 to supply electricity to coal mines in six regions of Ukraine at significantly reduced retail prices. The electricity supplied to coal mines via this company is cross-subsidized at the expense of other consumers in Ukraine. The future of this company remains undecided.

Controlling Power: Geographical Breakdown



Source: Concorde Capital estimates

Oblenergos: Current Ownership %

	Grigorishyn	Babakov /Privat	Surkis	AES	state	other
VinnitsaOE	10*	10*			75	5
VolynOE	10*				75	15
DniproOE	16*				75	9
DonetskOE					65	35
ZhytomyrOE		92				8
ZakarpatiaOE		11*			75	14
ZaporizhiaOE	19*				60	21
KievOE				89		11
KievEnergo					50	50
KirovohradOE		94				6
CrimeaEn					70	30
LvivOE	39*		13		27	21
MykolayivOE		24			70	6
OdessaOE		20+35*			25	20
PoltavaOE	40*		26*		25	9
PrykarpatOE	34*		27*		25	14
RivneOE				75		25
SevastopolEn		95				5
SumyOE	40*	10*	15		25	10
TernopilOE	40*				51	9
KharkivOE	29*				65	6
KhersonOE		95				5
KhmelnitskOE		12			70	18
CherkasyOE	16*				46	38
CernihivOE	40*		25*		25	10
ChernivtsiOE					70	30

** % are indicative, as ownership structure is obscure*

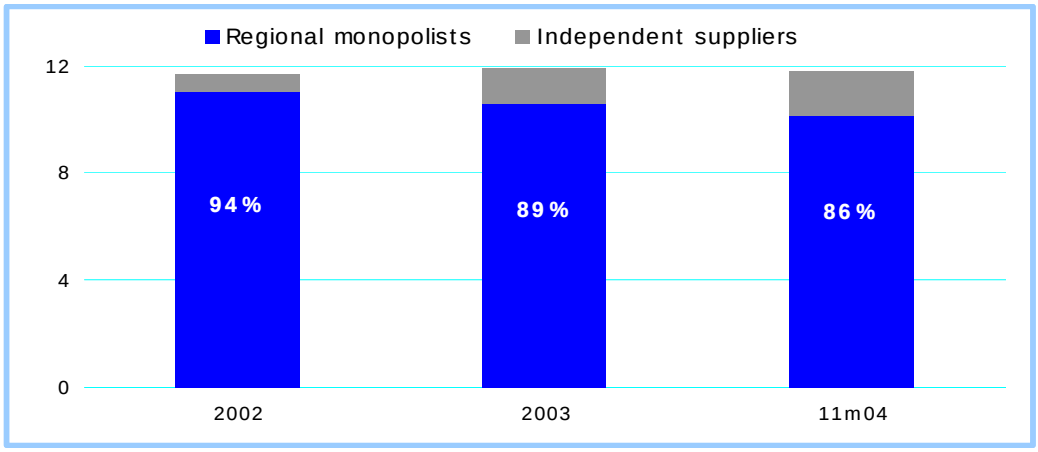
Competition

While Oblenergos are monopoly suppliers of electricity in most regions, electricity supply activity in oblasts with high electricity consumption is attractive to potential market entrants. Both regulated-tariff power suppliers and independent retailers are among the main prospective competitors of Oblenergos.

Competitive pressure from independent distributors is rising with every passing year. To illustrate, in 2003 number of independent suppliers rose from 43 to 56, which bought 2.6 times more electricity on the wholesale from the year before. The current number of independent suppliers is 71. As shown in the graph below, both the market share and total amount of electricity supplied by regional monopolists is declining every year.

In recent years oblenergos have felt more competitive pressure from independent suppliers

Average Monthly Electricity Supply, TWh



Source: EnergoBusiness

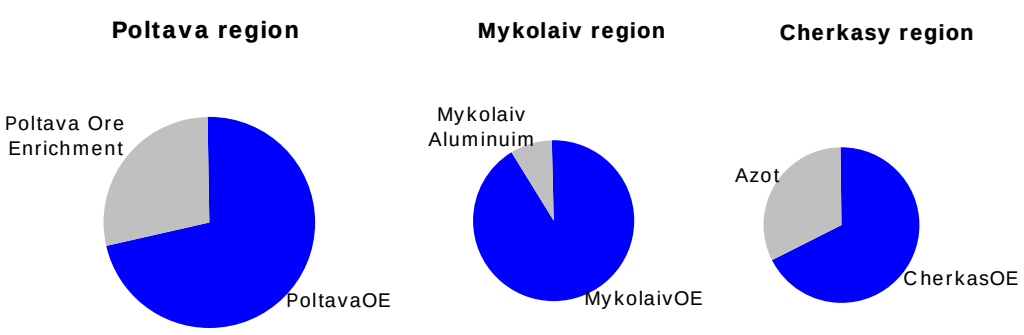
Independent suppliers are:

- Some industrial enterprises licensed to buy electricity directly from the wholesale market, bypassing Oblenergos. This results in lower electricity costs for them
- Companies that supply electricity to selected enterprises

Oblenergos that depend on a single industrial company are threatened by the prospect of a considerable drop in sales

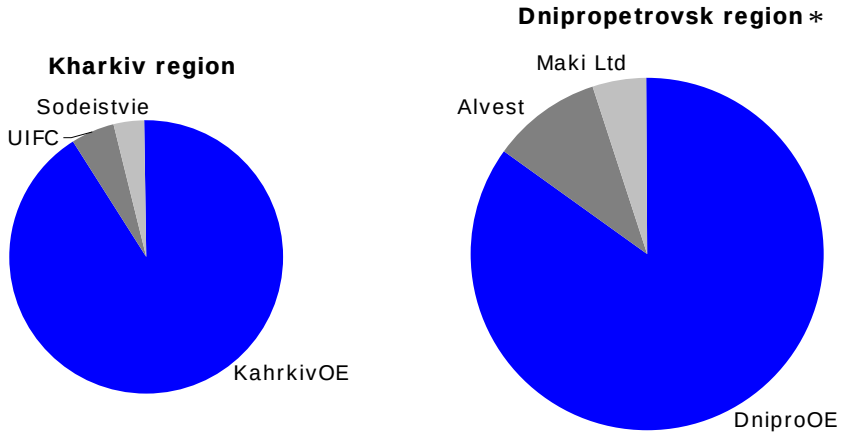
Independent suppliers are mainly targeting industrial enterprises in Dnipropetrovsk, Donetsk, and Kharkiv regions. Some of the independent suppliers have eaten away considerable shares of oblenregos' markets. For example, 2003 electricity sales of CherkasyOE and PoltavaOE declined by 33% and 22% respectively, when the Azot chemicals plant and Poltava Ore Processing Plant began supply themselves with electricity.

Regions With The Largest Share of Independent Suppliers, 2003



Source: Concorde Capital, NERC

Regions With The Largest Share of Independent Suppliers, 2003 (contd.)



Source: Concorde Capital, NERC
**** Maki and Alvest lost license for electricity supply in late 2003- start 2004***

Competition from alternative suppliers will be strengthened further…

The number of independent suppliers is expected to continue its upward trend, as the attractiveness of the distribution business increases, primarily due to improved consumer payment discipline. This should result in lower electricity rates, as consumers may now choose among buying electricity from the Oblenergo, a local independent supplier, or directly from the wholesale market operator.

…and the Gov't programme will stimulate the separation of large consumers

In the long term, after market liberalization has been completed and clear rules for electricity suppliers are in effect, Oblenergos will face a greater risk of losing large consumers. Moreover, the government's Electricity Market Development Concept envisions a simplified procedure for disconnecting Oblenergos from consumers that consume an annual 0.25 TWh and 0.1 TWh of electricity, which will be possible at the early stages of transition process to the direct contract system. This will motivate large consumers to defect from Oblenergos, which will be ultimately left with the function of transmitting electricity and supplying small industrial enterprises and non-industrial consumers. Furthermore, the concept envisions license-free operations for companies that supply small, limited amounts of electricity. This will increase competitive pressures on the Oblenergos.

Removing their social burdens will make energy monopolies more competitve

On the other hand, the problem of cross-subsidization for regional monopolies should be resolved before the bilateral contract system is in place. This will give Oblenergos a competitive edge over alternative suppliers. In this case, Oblenergos, which control the grid, would be free to charge higher rates for electricity transmission, thereby reducing the profitability of independent suppliers. We therefore believe that customer flight will not occur on a large scale.

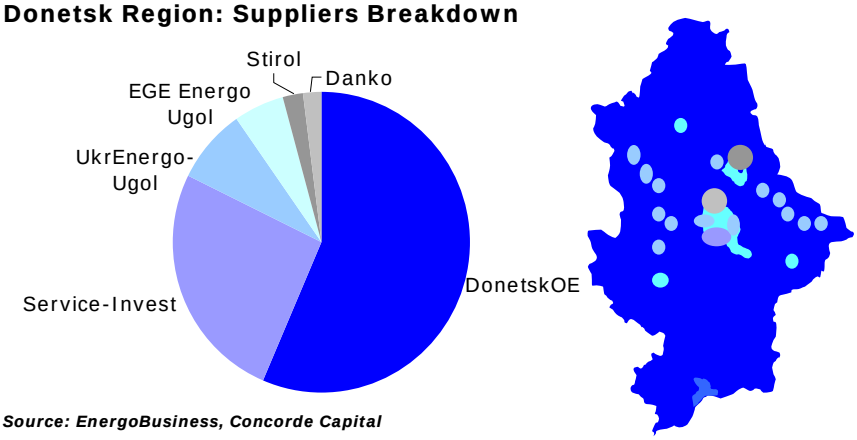
The Donets River Basin: A Special Case

DonetskOE is loosing its positions in Donetsk region, to the benefit of local business groups

The Donetsk region is Ukraine's second largest energy consumer and accounts for 17.6% of domestic electricity consumption, yet does not have an Oblenergo monopoly. As was written above, three regional companies and one supplier of electricity for coal mines (UkrEnergoUgol) provide companies in the Donetsk region at a regulated tariff. In addition, there are two powerful independent suppliers, Danko and Stirol, a chemical company.

Service-Invest, Danko, and EGE Energo-Ugol are controlled by Donetsk business groups with close ties to the company SCM (Rinat Akhmetov), and Andrey Klyuyev, Ukraine's former Vice-Prime Minister. This circumstance, as well as their control of three thermal power plants in the Donets Basin, makes the structures close to SCM the most powerful in the region. Hence, DonetskOE is under a great deal of pressure. Moreover, the company's significant debts mean it is constantly threatened with bankruptcy and seizure of production assets. However, the powerful lobby of the NC ECU makes the bankruptcy less likely.

Donetsk Region: Suppliers Breakdown



Source: EnergoBusiness, Concorde Capital

LuhanskOE has lost license for electricity supply

Another industrial region in the Donets River Basin has lost its Oblenergo altogether. The Luhansk Energy Union (LEU) has occupied its place and has been a monopoly electricity supplier in the region's territory since mid-2002, when the assets of LuhanskOE were seized during bankruptcy proceedings. Now LEU is managed by Interpipe Group. The region's coal mines are supplied by the company UkrEnergoUgol.

Market Position Sustainability

Regional monopolies, Oblenergos, are exposed to two major factors that threaten to undermine the long-term sustainability of their market position. First, competition from other, regulated- and non-regulated tariff suppliers is a constant threat for monopolies in power-intensive industrial regions. Second, Oblenergos run the risk of losing large industrial consumers, if they exist in the region.

All types of electricity distributors will face the threat of intensifyed competition in the energy supply sector, which will be inevitable after the market undergoes liberalization and becomes more profitable. The companies that are most likely to suffer from competition are:

Market liberalization could result in increased competition on large regional markets

- Oblenergos supplying large, energy-intensive regions. They potentially face competition from alternative electricity suppliers. After DonetskOE, which has completely lost its monopoly status, the other probable victims to intensifying competition are as follows:
  - DniproOE (20.6% of Ukraine's electricity consumption);
  - ZaporizhiaOE (8.2%);
  - KharkivOE (4.8%);
  - OdessaOE (4.3%)
  - CrimeaEnergo (3.2%)

Large consumers in medium-sized markets may separate from Oblenergos

- Oblenergos that supply small regions with a single major electricity consumer. The defection of a large consumer can reduce sales dramatically, as was the case with CherkasyOE, PoltavaOE, and MykolayivOE (see page 24). The companies especially exposed to the risk of consumer flight are as follows:
  - ZaporizhiaOE (Its key consumer, Zaporizhia Aluminum Plant, accounts for about 30% or regional consumption);
  - RinveOE (Rivneazot Chemicals Plant 2.7%);
  - SumyOE (Sumy Chemicals Plant);
  - VinnitsaOE (Vinnitsa Chemicals Plant);
  - PrykarpatOE (Oriana - 8%, Ivano-Frankivsk Cement - 3%);
  - KhersonOE (Kherson Oil Refinery – 2.2%).

Consequently, the market position of companies with a smaller percentage of industrial consumers and a large percentage of households is believed to be more stable in the long term, as their regions have less appeal for alternative suppliers.

Suppliers in large industrial regions face the threat of being ousted by alternative regulated-tariff suppliers, as has been the case in the Donetsk and Luhansk regions. We believe that this risk is presently limited owing to NC ECU protection.

As we mentioned on pages 15-16, suppliers in large industrial regions face less burden from cross-subsidization. As a result, tariffs for industrial consumers are relatively more equitable. Thus, the risk of consumer flight in industrialized regions is lower than in small regions with a few major industrial consumers.

Most exposed to the risk of losing their market position are suppliers in regions with a dominant industrial electricity consumer, as these companies can supply electricity one their own, the size of the region notwithstanding.

In the table below we have summarized factors that determine the sustainability of Oblenergo market positions.

Risks Of Losing Market Power

Region Size	Share of households	Risk of:	
		Customer defection	Competitor entry
Small/medium	high	high	low
Large industrial	low	medium	high

Based on these criteria we prepared a detailed table with estimations of market position sustainability by Oblenergos.

Regional Profiles And Oblenergos' Market Position Sustainability

	Regional Consumption, TWh, 2003	Households %	Main regional consumers	Market position sustainability
DniproOE	23.37	10.0	GOKs, Petrovsk Steel, Dzerzhynsk Steel, Nikopol Ferroalloy	**low**
DonetskOE	14.14	8.3	Coal mines, MMKI, EnergoUgol	**very low**
ZaporizhiaOE	10.64	17.8	ZALK (privileges), ZATR, ZPST	**low**
LuhanskEU	7.81	9.8	Coal mines, LiNOS oil refinery	**low**
KievEnergo	6.98	40.4	-	**high**
KharkivOE	4.66	29.0	Malyshev, Turboatom machine	**medium**
OdessaOE	4.14	35.1	Odessa Portside chemical	**medium**
PoltavaOE	4.06	13.9	Poltava GOK (gone), UkrTatNafta oil refinery, Poltava Gas	**low**
CrimeaEnergo	3.18	28.0	-	**medium**
LvivOE	3.13	19.0	Halychyna Oil Refinery, Lviv Bus	**medium**
KievOE	2.99	26.4	-	**high**
MykolayivOE	2.23	20.0	Mykolaiv Aluminum (gone)	**low**
CherkasyOE	2.16	21.0	Azot (gone)	**low**
KhersonOE	1.95	33.5	Kherson Oil Processing, Kherson Ship Building	**medium**
RivneOE	1.80	22.4	RivneAzot (almost gone)	**low**
KirovohradOE	1.76	27.0	Pobuzk Ferro (gone)	**medium**
VinnitsaOE	1.66	30.6	Himprom, Odessa Railway	**medium**
ZhytomyrOE	1.65	26.5	Irshansk GOK (almost gone)	**low**
PrykarpatOE	1.55	28.1	LukOR chemical (almost gone), Frankivsk Cement	**low**
KhmelnitskOE	1.44	30.8	-	**high**
SumyOE	1.39	25.0	Sumy Himprom chemical	**medium**
CernihivOE	1.34	25.8	Chemical Fiber, Cheksil	**medium**
ZakarpatiaOE	1.32	33.0	-	**high**
ChernivtsiOE	0.91	58.1	-	**high**
TernopilOE	0.90	37.5	-	**high**
VolynOE	0.90	27.0	-	**high**
SevastopolEn	0.75	38.9	-	**high**

Source: Concorde Capital

Debt Concerns

The problem of past-due debts is endemic to all energy sector companies in operation since the mid-1990s, at least, when payments for electricity were an exception rather than the rule. Since then, companies have accumulated large debts the size of a yearly turnover on the wholesale electricity market. The company UkrEnergoUgol, which was established in 2003, has inherited debts from DonetskUgol company.

The accumulated debt of some oblenergos to EnergoRynok is two to three times annual sales

Debt Of Regulated-Tariff Suppliers To EnergoRynok As Of Dec. 1, 2004

	Debt, USD mn	Debt / Electricity Purchased 11m04
DonetskOE	736.2	259%
DniproOE	442.3	62%
CrimeaEnergo	196.5	231%
OdessaOE	193.9	151%
ZaporizhiaOE	169.3	65%
KharkivOE	133.7	107%
KhersonOE	98.3	224%
MykolayivOE	93.5	150%
VinnitsaOE	77.5	157%
LvivOE	65.2	76%
ZakarpatiaOE	53.2	143%
ChernivtsiOE	45.7	195%
CherkasyOE	36.4	106%
TernopilOE	30.8	149%
SumyOE	29.7	80%
KhmelnitskOE	28.5	75%
PrykarpatOE	24.0	58%
KirovohradOE	**21.8**	**57%**
PoltavaOE	18.3	25%
CernihivOE	14.3	43%
VolynOE	11.3	43%
KievOE	**8.2**	**10%**
SevastopolEnergo	**6.3**	**30%**
ZhytomyrOE	**5.7**	**14%**
RivneOE	**5.0**	**9%**
KievEnergo	0.4	1%
Ukr-Energo-Ugol	123.7	73%
EGE Energo-Ugol	14.5	42%
Service-Invest	0.2	0%

Source: EnergoBusiness

The enormous payment arrears of some companies have doomed them to a cash-strapped existence for many years to come, unless the government decides to write off these debts. The adoption of a debt restructuring law is a key factor for continued sector reform, and is a primary aim of new government.

Companies restructuring debt receive preferential treatment by the NERC

Overdue debts have been restructured by the companies (in bold type) privatized in 2001, with the exception of KhersonOE. Debt restructuring and a low level of debt to EnergoRynok has earned them the trust of the NERC. The highlighted companies and Service-Invest, a relatively new company on the market, are entitled to collect all the money paid by consumers according to the NERC algorithm (see table on page 32).

How Oblenergos Earn?

Energy distributor tariffs are designed to compensate for distribution costs and obtain a pre-determined fixed level of profit, for privately held companies (refer to pps 13-14 for supplier tariff setting). However, companies have the possibility of obtaining additional earnings by economizing on expenses or overstating their costs. Below we have summarized the points where Oblenergos can earn additional profits, or differ one from another in profit potential.

Supplier tariffs cover:

Companies can benefit from:

The cost of buying electricity on the wholesale market:
It is essential to predict/estimate wholesale electricity prices. It is the responsibility of the NERC to make these estimates and for Oblenergos take them at face value.

Cutting salary funds

Wage costs:
In 2001, every company submitted an estimate of the size of its wage fund for the next seven years, taking into account the workforce dynamics and average wages during this period. The NERC approves the size of the wage fund. Hence, Oblenergos can turn the wage fund into an additional source of profit by using it economically.

Decreased electricity losses below the normative level

Costs of electricity transmission and delivery to consumers:
An important consideration in this case are electricity losses in the company's grid. The level of permissible losses, for which Oblenergos are reimbursed, is determined using a set of formulas. It primarily depends on the condition of the grid, its length (longer distances mean greater losses), and consumer structure. A greater number of low-voltage electricity consumers means greater losses in the process of transforming high-voltage electricity bought from Ukrenergo to low-voltage that is suitable for end user.

The NERC may approve a high level of permissible electricity losses, but in this case the company must pledge to reduce such losses. Companies that fail to observe this commitment face penalties from the NERC. The difference between permissible and actual electricity losses can be an additional source of profit or loss for the company. Thus, the company can benefit from reducing its actual level of losses below the permissible level of losses that are compensated by the tariff. However, it is a short-term source of additional profit, as electricity losses in Oblenergo grids are forced to converge to the permissible level.

Fixed costs:
As a rule, these are discretionary costs, but they should be within reasonable limits. The costs are the subject of intense bargaining between the NERC and distributors. Oblenergos can hardly afford to economize on these costs.

Investing in fixed assets

Investments profit:
If the company invests in fixed assets, the NERC provides for a refund that returns ***(17% +i)/2*** of the investment cost, where ***i*** is the interest rate on the loan secured by the investor, or ***i=17%*** if the company has invested its own funds. The ***i*** cannot exceed 17%. This refund serves to stimulate investment activity. Companies have to endorse their investment programs, according to which the NERC adjusts the supplier rate. If the Oblenergo fails to observe its investment commitments, this rate is reduced. It is therefore impossible to take advantage of overstated investment plans. Moreover, some companies complain that the NERC refuses to approve their generous investment programs. This is not surprising, since the regulatory agency seeks to maintain the lowest possible level of electricity prices for consumers.

Privatized companies also benefit from the 17% rent on the invested money

Profit From Strategic Investments:
Privatized companies are different in that their tariff enables them to obtain a certain level of profit that is more like rent, since it depends exclusively on the privatization value of the company. Under the current legislation the margin is 17% to the privatization value, but beginning with 2008 the NERC will be free to set it to discretion (but above 11%).

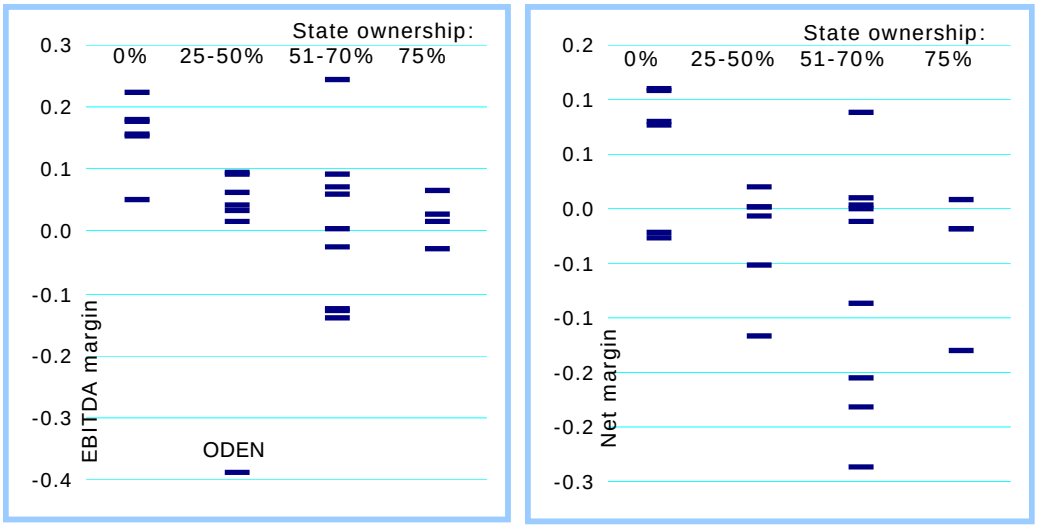
Well-performing companies benefit from unrestricted cash flows

Distributors with a perfect payment record, usually private companies, face fewer operating capital constraints, since all the funds paid by consumers are transferred to their own accounts. Other companies have an average of one-third of receipts from consumers at their disposal (cash flow specifics are explained on page 17).

Strong evidence suggests that fully privatized Oblenergos (except for KhersonOE) are using all the above mentioned opportunities to the fullest extent to outperform the remaining distributors.

Unsurprisingly, private companies are more efficient

EBITDA And Net Margins Adjusted* vs Ownership Structure, 2003



Source: Concorde Capital
**** for adjustment, see pps 34-35***

Distributive Account Implications

Accounting Specifics Or Sales Drop?

Disciplined private utilities have fewer cash restrictions imposed by the NERC

Money transfers from the distributive account to the Oblenergo's own account are controlled by the NERC. Some companies (see the table below) have earned the right to pay for electricity bought on the wholesale market on their own. The necessary conditions are: A good payment record for the previous month, the observation of debt restructuring agreements, and signing payment schedule agreement. In the case of all other companies, only an authorized bank has the right to pay for electricity purchased by Oblenergos. The bank transfers money from the companies' distributive accounts directly to the distributive account of EnergoRynok (see the scheme on page 17), so that a considerable part of the money from electricity consumers bypasses the Oblenergo's own accounts. A special decree, called the *NERC Algorithm,* stipulates the cash flow distribution of Oblenergos *distributive* account for each month separately.

The NERC Algorithm: % Of Money The Company Obtain From Consumers

	NERC algorithm, %	% of private ownership
DniproOE	6,55	25
ZaporizhiaOE	8,36	40
LuhanskOE	12,23	100
MykolayivOE	13,68	30
DonetskOE	13,88	35
EGE Energo-Ugol	15,25	100
Ukr-Enego-Ugol	16,58	0
ZakarpatiaOE	24,94	25
CrimeaEnergo	25,00	30
KharkivOE	25,06	35
LvivOE	26,69	73
ChernivtsiOE	27,65	30
VolynOE	28,14	25
OdessaOE	29,92	75
SumyOE	31,06	75
KhersonOE	32,00	100
KhmelnitskOE	35,32	30
CherkasyOE	35,90	54
CernihivOE	37,88	75
VinnitsaOE	40,08	25
TernopilOE	41,57	49
PrykarpatOE	49,19	75
PoltavaOE	57,53	75
ZhytomyrOE	100,00	100
KievOE	100,00	100
KievEnergo	100,00	38
KirovohradOE	100,00	100
RivneOE	100,00	100
SevastopolEnergo	100,00	100
Service-Invest	100,00	100

Source: NERC decree

The algorithm helps to understand the dramatic changes that occurred to companies' financials in recent years. In 2003, some companies reported significant sales drops, while the amount of electricity they bought remained relatively unchanged.

Dynamics Of Electricity Purchase And Revenue, 2003/02

	Purchase + Generation	Sales
VinnitsaOE	89%	102%
VolynOE	101%	82%
DniproOE	**96%**	**13%**
DonetskOE	**70%**	**11%**
ZhytomyrOE	99%	106%
ZakarpatiaOE	109%	112%
ZaporizhiaOE	103%	108%
KievOE	97%	104%
KievEnergo	85%	109%
KirovohradOE	97%	109%
CrimeaEnergo	99%	112%
LvivOE	103%	119%
MykolayivOE	**100%**	**35%**
OdessaOE	101%	110%
PoltavaOE	78%*	95%
PrykarpatOE	104%	126%
RivneOE	104%	113%
SevastopolEnergo	121%	138%
SumyOE	99%	105%
TernopilOE	**96%**	**43%**
KharkivOE	91%	127%
KhersonOE	97%	130%
KhmelnitskOE	100%	109%
CherkasyOE	**67%****	**34%**
ChernivtsiOE	**104%**	**45%**
ChernihivOE	96%	123%

Source: EnergoBusiness, Concorde Capital
** PoltavaOE saw its market share shrink as Poltava Ore Processing Combine switched to a different supplier*
*** CherkasyOE lost Azot company to a different supplier, see charts on page 24 for explanation*

NERC algorithm is the reason for the apparent differences in company sales

The fall in sales is an easy phenomenon to explain. With the introduction of the distributive account, some companies changed their accounting policy. They now recognize revenues as funds that accumulate only in their own, and not in distributive, accounts. The graph below makes it possible to single out three groups of companies that differ in terms of their accounting approach and in terms of the policy the NERC has adopted with respect to them.

The first group features exemplary companies (black triangles in the graph below), which are private, have a good payment record and are restructuring their debt. They have all the funds paid into the distributive account at their disposal.

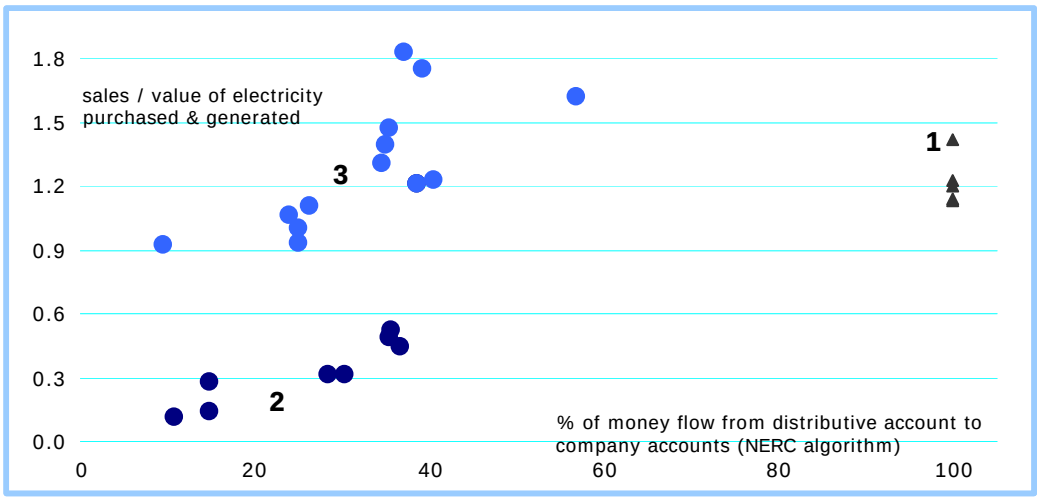
The other two groups feature companies that have funds transferred from the distributive account directly to EnergoRynok, bypassing the Oblenergos' own accounts.

Distributive account inflows may be treated either as *revenues*, or *other operating income* on OE's P&L statement

Companies in the second group (dark blue dots) recognize as revenue only funds that are paid into their own account. This is an alternative accounting group. Companies in this group classify the cost of electricity they buy as "other operating expenses" and funds paid into the distributive account by consumers as "other operating income".

Companies in the third group (light blue dots) take into account the total value of electricity supplied to consumers when calculating their revenue.

Purchase / Sales Ratio* 2003 vs NERC Algorithm, Dec. 2003 **



Source: NERC decree, EnergoBusiness, Concorde capital estimates
**Ratio = Value of purchased and generated electricity / Sales 2003*

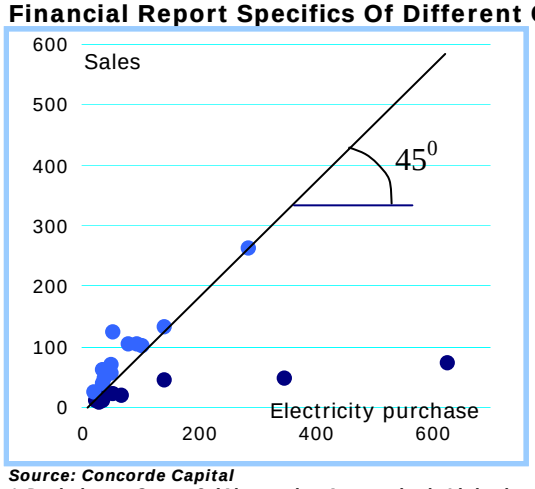
Groups Of Companies From The Graph Above (As Of Dec. 2003)

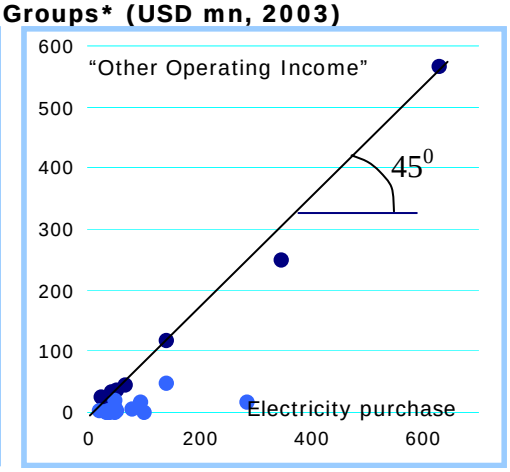
Group 1	Group 2	Group 3
KievEnergo	CernivtsiOE	ChernihivOE
KirovohradOE	CherkasyOE	CrimeaEnergo
RivneOE*	DniproOE	KhersonOE
SevastopolEnergo	DonetskOE	KhmelnitskOE
ZhytomyrOE	KharkivOE	LvivOE
KievOE*	MykolayivOE	OdessaOE
	TernopilOE	PoltavaOE
	VinnitsaOE	PrykarpatOE
	VolynOE	SumyOE
		ZakarpatiaOE
		ZaporizhiaOE

Source: Concorde Capital
**KievOE and RivneOE, in contrast to the others in first column, not always obey the agreemnts with EnergoRynok. Thus, during last 6 months, they obtained 100% algorithm only twice*

Companies in the second group classify the cost of electricity bought as "other operating costs" and the funds transferred from consumers to EnergoRynok as "other operating income." The graphs below provide a clear illustration of this approach.

Financial Report Specifics Of Different Groups* (USD mn, 2003)





Source: Concorde Capital
** Dark dots – Group 2 (Alternative Accounting); Light dots – Group 1 and 3*

We have adjusted reported sales to make Oblenergos comparable

For this reason, sales figures of different Oblenergos must be compared with care, as the companies do not have a uniform approach to reporting their performance. This also produces a distorted picture of profitability margins. Therefore, instead of EBITDA- and net margins for companies from the alternative-accounting group, we have used an adjusted ratio of EBITDA (net income) to sales. To make an adjustment for the alternative accounting group we have:

1) Isolated the portion of income companies report as "other operating income" received as payments from consumers, but transferred from the Oblenergo's distributive account to EnergoRynok
2) Added this figure to sales

The Essence of The NERC Algorithm

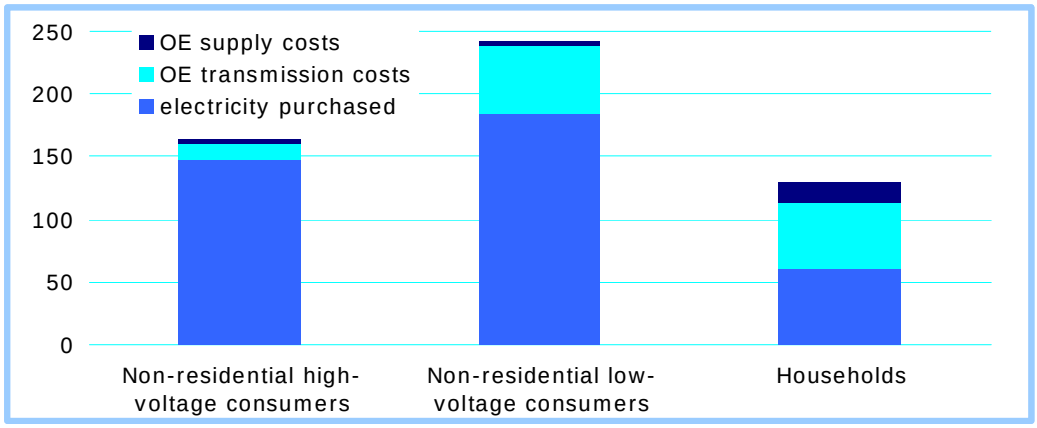
The NERC algorithm is used to calculate the share of receipts from consumers, which remain at the disposal of regulated-tariff suppliers. We will hereafter refer to this share as the NERC algorithm. It covers the cost of:

- Electricity transmission and delivery to consumers
- Electricity generated by the supplier using its own facilities
- Electricity that Oblenergos purchase from generators according to a special procedure (bypassing the mediation of EnergoRynok)

The remainder of receipts is remitted to a special EnergoRynok account, as a transfer for the electricity purchased.

From the graph below it is clear that the proportion of money earned by the Oblenergo in the MWh transmitted and supplied to households is larger than the supply to industrials.

Distribution Of Money Paid From Consumers (Nov. 04) Per MWh



Source: NREC, EnergoBusiness, Concorde Capital calculations

In general, Oblenergos can expect a higher percentage of sales receipts remitted to their own accounts from the distributive account if they:

- Have a larger percentage of households in the consumer structure (see graph below)
- Have a larger percentage of low-voltage non-residential consumers
- Generate part of the electricity on their own or buy it directly from generators (This is the case with PolatavaOE, which leases Kremenchug CHPP to produce close to one-third of the electricity it sells)

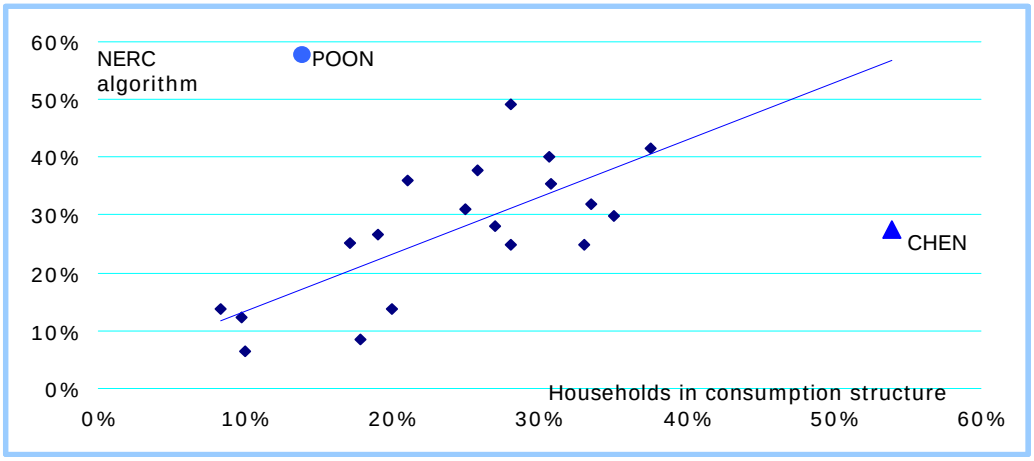
NERC Algorithm Determinants (Dec. 2004)

	State ownership	Households	Payment Level	Algorithm
ZhytomyrOE	**0%**	27%	109%	100%
KievOE	**0%**	26%	105%	100%
KievEnergo	50%	40%	97%	100%
KirovohradOE	**0%**	27%	112%	100%
RivneOE	**0%**	22%	102%	100%
SevastopolEnergo	**0%**	39%	117%	100%
PoltavaOE	25%	14%	108%	58%
PrykarpatOE	25%	28%	105%	49%
TernopilOE	51%	38%	106%	42%
VinnitsaOE	75%	31%	98%	40%
CernihivOE	25%	26%	102%	38%
CherkasyOE	46%	21%	112%	36%
KhmelnitskOE	70%	31%	101%	35%
KhersonOE	**0%**	33%	105%	32%
SumyOE	25%	25%	105%	31%
OdessaOE	25%	35%	97%	30%
VolynOE	75%	27%	105%	28%
ChernivtsiOE	70%	58%	89%	28%
LvivOE	27%	19%	106%	27%
KharkivOE	65%	17%	103%	25%
CrimeaEnergo	70%	28%	96%	25%
ZakarpatiaOE	75%	33%	83%	25%
DonetskOE	65%	8%	77%	14%
MykolayivOE	70%	20%	86%	14%
LuhanskEU	**0%**	10%	89%	12%
ZaporizhiaOE	60%	18%	103%	8%
DniproOE	75%	10%	99%	7%

Source: NERC, EnergoBusiness, Concorde Capital

The percentage of households in the consumption structure is the key factor to determining the percentage of receipts channeled from the distributive account into the company's own account:

% Of Households In Consumption Structure vs NERC Algorithm* (Dec.04)



Source: NERC, company data, Concorde Capital
**** outliers are: ChernivtsiOE: triangle (because of extremely low payments for electricity), and PoltavaOE: circle (it independently produces 1/3 of the electricity it sells)***

Low cash flow from the distributive account introduces an additional business risk factor, which we refer as *algorithm leverage*. Under the currently prevailing conditions, when the risk of non-payment for consumed electricity is significant, Oblenergos with lower NERC-determined cash allowance have a thinner safety margin. As a result, they are exposed to a higher risk of cash constraints in the case of customer non-payment, and are most likely to violate payment discipline. This carries the threat of penalties from the NERC, which can reduce the NERC algorithm for the following month or cut tariffs.

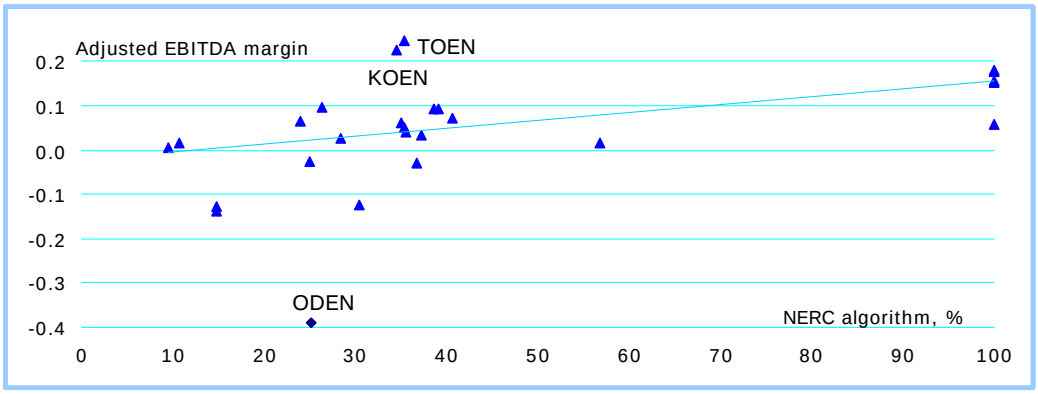
Exhibit 1. Algorithm Leverage

Let us assume the following:
1) Two Oblenergos have an equal, 90% payment level for consumers,
2) Both are obliged to pay in full for the electricity they receive from the wholesale market operator.
3) One of the companies (OE-1) is eligible for 10% of cash collections, according to NERC algorithm (90% is obtained by EnergoRynok),
4) while another (OE-2) company's allowance is 50%.

In order to pay in full to the wholesale market operator for the electricity purchased, OE-1 must remit 100% of its cash receipts to the account of the wholesale operator, while OE-2 has to part only with 11% of its cash receipts. Thus, OE-1 is more likely to become cash constrained and fail to pay in full for the electricity it receives, which carries a greater risk of penalties from the NERC. We refer to this dependence of the company's performance on the NERC algorithm as *algorithm leverage*.

As the graph below suggests, a lower NERC algorithm tends to adversely affect the profitability margin.

NERC Algorithm (Dec. 2003) vs EBITDA Margin (2003) Adjusted*



Source: NERC, Concorde Capital
**** For sales adjustments, see pps 34-35***

Excessive Costs

Excessive losses of electricity undermine Oblenergos profitability

This section deals with costs that undermine companies' financial performance, since they are not fully covered by the supplier tariffs. It would be possible to classify them as extra costs, but since the companies incur them constantly, they are not viewed as such.

Most Oblenergos face financial setbacks due to the high level of electricity losses not covered by tariffs. Most excessive electricity losses occur in transmission grids, or are caused by the illegal actions of consumers or third parties.

Companies differ significantly in terms of electricity losses that exceed the permissible amount that is compensated. Causes of extra electricity losses are as follows:

- Losses caused by electricity theft
- Excessive losses caused by equipment deterioration

Electricity Losses In Grids Of Regional Distributors, %

Company	Permissible, 9m04	Actual, 9m2004	Extra losses	Actual, 9m2003
DniproOE	5.1	**7.2**	2.1	9.7
PoltavaOE	10.5	**7.8**	-2.7	11.1
ZaporizhiaOE	9.1	**9.3**	0.2	11.3
SumyOE	15.7	**11.8**	-3.9	13.5
PrykarpatOE	13.9	**12.5**	-1.4	17.8
Luhansk EU	10.2	**12.6**	2.4	15.4
KievEnergo	10.3	**12.8**	2.5	12.6
CherkasyOE	14.1	**12.9**	-1.2	18.5
RivneOE	13.9	**13.5**	-0.4	15.8
CernihivOE	15.7	**13.8**	-1.9	15.7
KirovohradOE	16.0	**15.8**	-0.2	20.2
LvivOE	17.4	**16.4**	-1.0	22.6
KievOE	16.8	**16.4**	-0.4	18.7
SevastopolEnergo	15.2	**16.5**	1.3	18.5
CrimeaEnergo	16.2	**16.9**	0.7	31.8
ZhytomyrOE	17.3	**17.4**	0.1	18.4
KharkivOE	16.0	**17.9**	1.9	24.2
KhersonOE	17.7	**19.5**	1.8	27.0
TernopilOE	20.6	**20.4**	-0.2	24.0
VolynOE	16.4	**20.6**	4.2	28.4
VinnitsaOE	14.9	**21.8**	6.9	30.5
KhmelnitskOE	17.8	**22.3**	4.5	26.2
OdessaOE	15.0	**25.2**	10.2	31.6
MykolayivOE	13.8	**27.2**	13.4	28.8
ChernivtsiOE	21.3	**27.6**	6.3	31.8
DonetskOE	16.4	**30.0**	13.6	26.2
ZakarpatiaOE	21.3	**30.5**	9.2	30.7

Source: EnergoBusiness

As much as 2.2-2.5% of electricity consumption in Ukraine is unauthorized

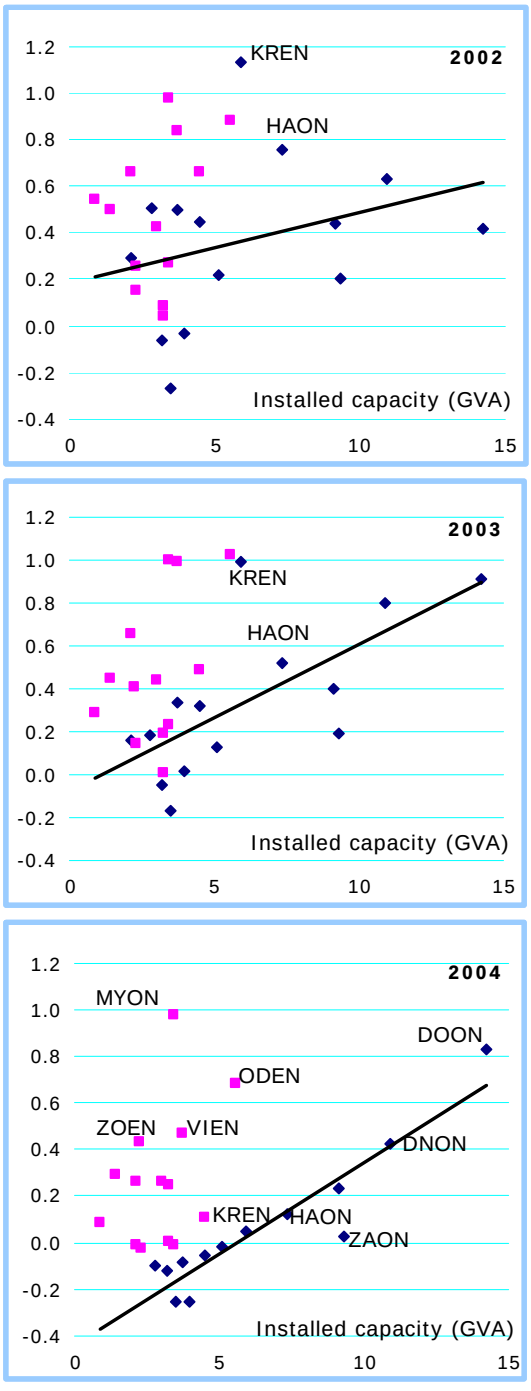
Electricity theft is a noticeable cause of electricity grid losses. In most cases, this is done by households via unauthorized access to the electricity grid, or removal of the electricity meter. Where households have no counters, their electricity consumption is calculated as the average consumption in the given location. However, such households tend to consume more electricity.

According to the Power Engineering Union, 388,000 cases of stolen electricity were reported in Ukraine in 2003. The total volume of unauthorized electricity consumption came to 1.33 TWh, or 1% of electricity consumed in Ukraine (households account for 70% of this amount). Moreover, according to the Union's estimates, only 40% of electricity theft incidents are discovered. Thus, an estimated 2.2% to 2.5% of electricity consumption in Ukraine is unauthorized.

No proven relationship between extra losses and grid length

We have not found any strong relationship between extra losses and parameters that contribute to electricity pilferage, such as the length of the company's grid, service territory, population, or the volume of the electricity supplied. In fact, it is known that only two of the five biggest suppliers have faced high losses. This suggests that losses from pilferage are company-specific. However, there is a statistically significant relationship between extra losses and transformer capacity, which is proof of the dependence of losses on the condition of equipment.

Transformer Installed Capacity vs Excess Losses (% to permissive)



Source: EnegoBusiness, Concorde Capital estimates

The relationship became evident in 2004, when NERC's strict policy to force Oblenergos to cut excess losses led to significant improvements. During two years, the initially chaotic distribution evolved into a two-cluster universe. In 2004, apart from a still diffuse group (red squares), one can observe a cluster with a clear correlation of capacity and extra-losses (blue dots, with a regression line).

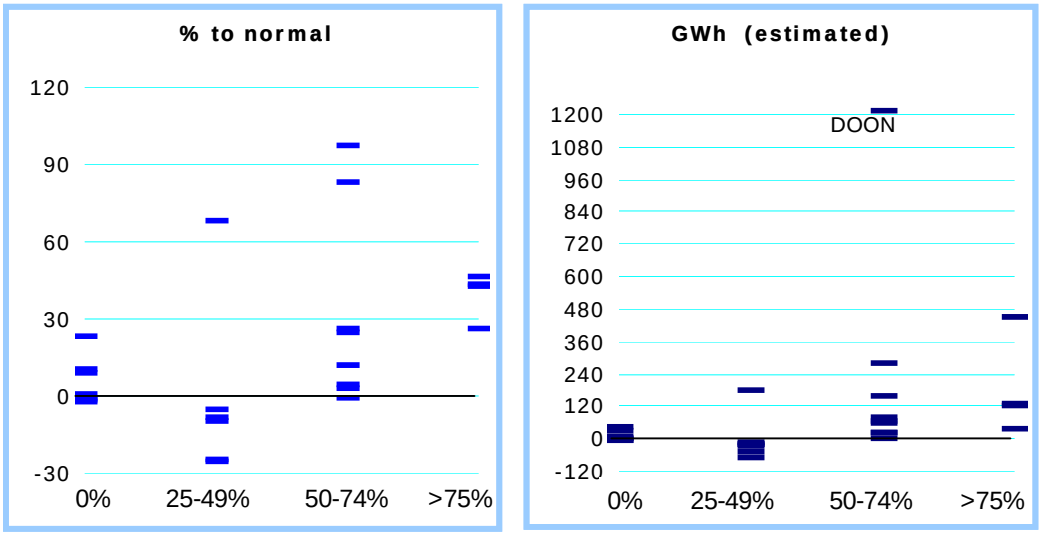
We can see an effective frontier, which is believed to be reflective of the existing equipment's technical limitations. For example, KREN and HAON, which managed to dramatically reduce extra-losses over the course of two years, fell down to the level of the frontier line. This suggests that for the majority of relatively small distributors (below 5 GVA), the problem of cutting excess losses is an issue of effectively controlling electricity theft, not a problem of capital investments.

Among the companies with relatively small transformer capacity, the highest excess losses were posted by those who supply low-industrialized regions, with a large rural population, such as OdessaOE, MykolaivOE, ZakarpatiaOE and VinnitsaOE. It appears that for these companies, marginal GVA capacity translates into a steeper loss increment than for others.

In addition, we have found a strong statistical relationship between excess losses and the form of company ownership, as shown in the graph below.

State Ownership (% Range) vs Energy Excess Losses, 9m2004 Results

The strong statistical relationship between extra losses and ownership structure shows that privately held companies function better



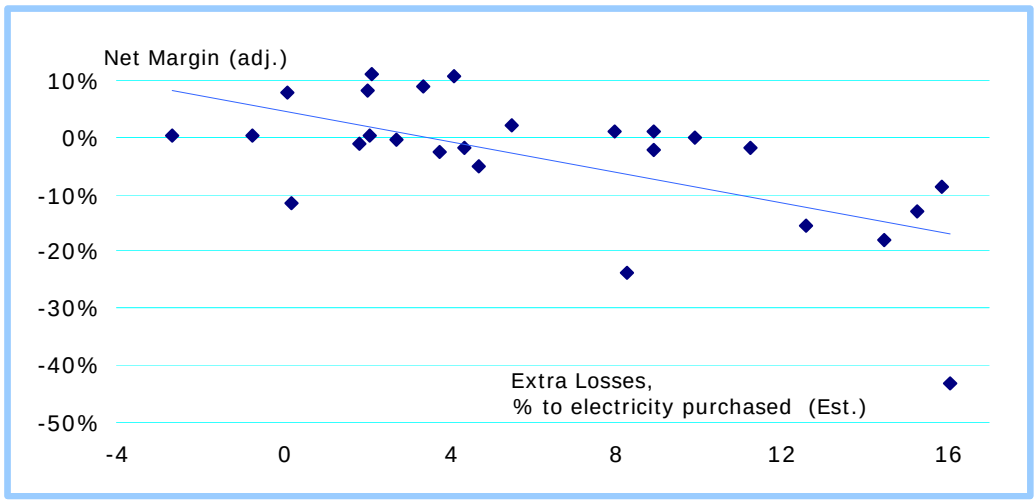
Source: EnergoBusiness, EnergoRynok, Concorde Capital estimates

This prompts the conclusion that companies controlled by private entities are either more successful in cutting transmission costs, or they have been able to secure higher permissible losses from the NERC. In any case, private companies are more cost efficient.

As excess losses are not covered by the supplier tariffs, a high level of excess losses in the electricity grid directly impacts the net margin of distribution companies. The impact is clearly evident at extra losses are beyond 8% to electricity supply, as the graph below suggests. Where actual losses do not differ much from the permissible losses, they do not have a considerable impact on net margin.

Excess Electricity Losses vs Adjusted* Net Margin, 2003

Extra losses above 8% affect financial performance dramatically



Source: EnergoBusiness, Concorde Capital estimates
** For adjustments, see pps 34-35*

A portion of extra electricity losses in 2004-2005 is compensated by NERC

It is noteworthy that the NERC has decided to offset the extra losses of seven companies since June 1, 2004 to June 1, 2005, if the companies begin reducing their actual level of losses at certain level for that period (see the table), and make full payments for electricity. Losses will be covered by both way of increasing suppliers' and consumers' rates. This innovation has affected four companies controlled by the NC ECU: VinnitsaOE, VolynOE, DniproOE, ZakarpatiaOE, two companies in which the NC ECU owns 25%: KhmelnitskOE and ChernivtsiOE, and one private company belonging to the VSE – KhersonOE.

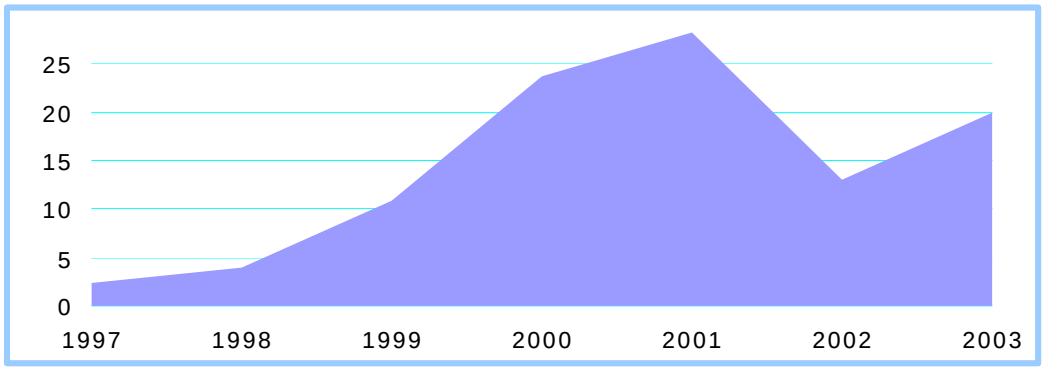
Additional Compensation Of Excessive Losses, June 2004-May 2005

	Qualifying obligations		Compensation of excessive losses,%
	Losses reduction % p.a.	Payment level	
VinnitsaOE	3.5	100%	7
VolynOE	3.5	100%	7
DniproOE	3.5	100%	7
ZakarpatiaOE	3.5	97%	6
KhmelnistsOE	3.5	100%	7
ChernivtsiOE	2.5	100%	5
KhersonOE	2.16	100%	4

Source: NERC decree

Equipment theft is another cause of excess losses for Oblenergos. In 2003, Oblenergo losses from the theft of cables, gridlines, transformer elements and fuel accounted for 0.5% of the total value of electricity consumed in Ukraine. Losses from theft are not compensated, which prompts Oblenergos to control equipment cautiously.

Estimated Loss From Equipment Theft In Ukraine, USD Mn



Source: KievEnergo

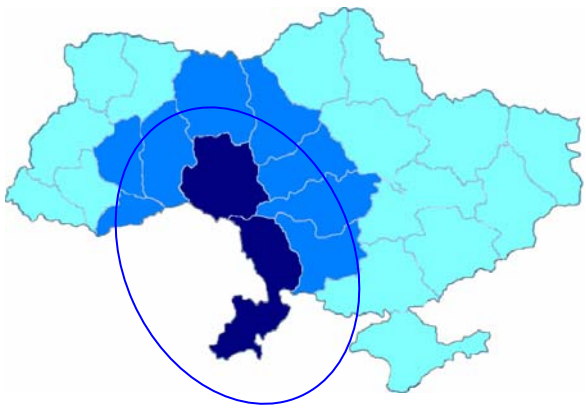
Natural disasters, which do much harm, are rare in Ukraine

As electricity is mostly transmitted via open-air overhead lines, the condition of the Oblenergos grids are affected by weather conditions. Wind and frost can do more harm to the grid than any thief can. A major disaster struck in October-December 2000, causing severe damage to Oblenergos in two regions, as shown in the table below.

Natural Disaster 2000 Losses

	USD mn	% of sales 2001
OdessaOE	68.57	61.9
VinnitsaOE	14.42	26.0
KhelnitskOE	3.61	8.8
MykolaivOE	4.37	8.1
KirovogradOE	3.67	6.6
CherkasyOE	1.42	2.3
ChernivtsiOE	0.17	0.8
ZhytomirOE	0.38	0.8
TernopilOE	0.02	0.1
KievOE	0.04	0.1
RivneOE	0.01	0.0

Source: Counting Chamber of Ukraine, company data

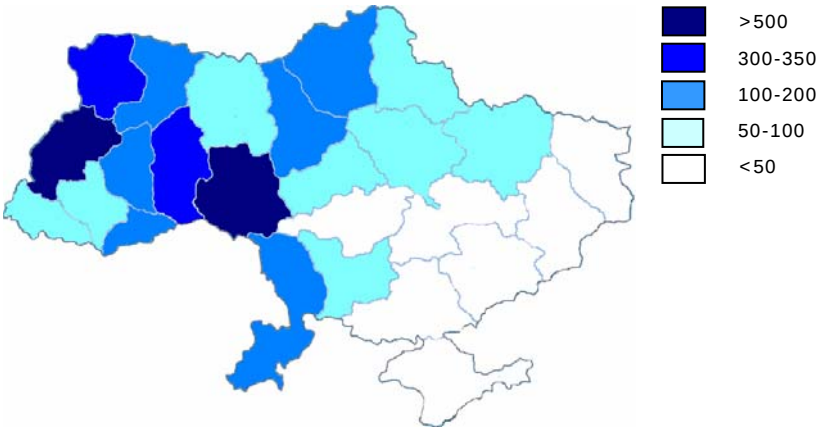


After the winter of 2000, all Oblenergos began mandatory insurance of their assets against damage from natural disasters. However, the size of the Ukrainian insurance market does not make it possible for companies to offset all potential losses.

Energy supply in the western and central regions suffer from bad weather

Natural disasters like the one in 2000 do not occur regularly and can affect any particular region, not necessarily those hit hardest in 2000. Potentially, every energy distribution company can suffer similar damage at any moment. Minor problems with energy supply occur often in the case of snowfall or strong winds. Most of this kind of damages occurs in central and western Ukraine.

Extraordinary Cases With Electric Grids* Per Region, Feb 2004- Jan 2005



Source: Emergencies Ministry, Concorde Capital estimates
**** Settlement cases of grid disconnection due to ice, rain or wind***

Efficiency Trends

We have found no evidence to suggest that the efficiency of distribution companies depends on their size. Although the largest companies tend to be less efficient, we are inclined to attribute this to their ownership structure and the consumer structure of the respective regions.

No clear link between size and profitability exists

Selected Financials 2003, USD mn

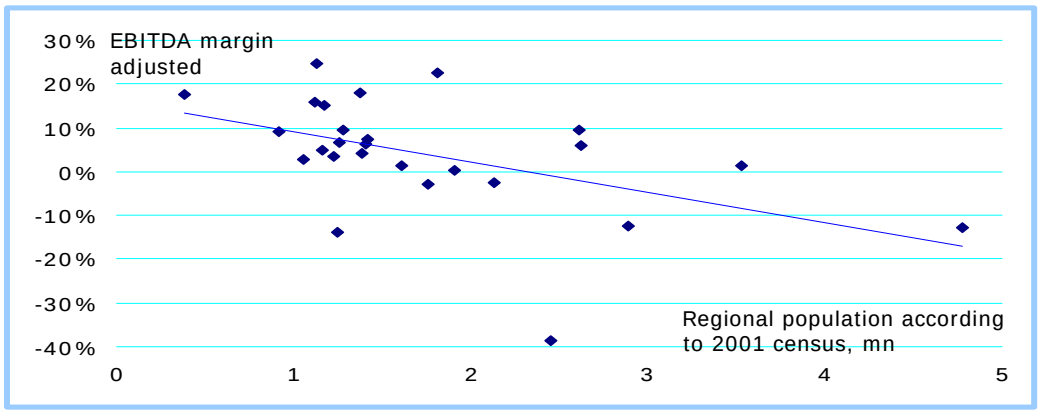
	Sales	Sales (adj)*	EBITDA margin (adj)*	Net margin (adj)*
SevastopolEnergo	26.3	26.3	18%	11%
CernivtsiOE	11.7	28.0	3%	0%
VolynOE	9.0	28.9	3%	-2%
TernopilOE	12.0	36.5	25%	9%
ZakarpatiaOE	40.4	40.4	7%	1%
KhmelnitskOE	46.8	46.8	7%	1%
CherkasyOE	22.6	53.6	4%	-5%
ZhytomyrOE	56.6	56.6	18%	8%
PrykarpatOE	57.0	57.0	6%	-1%
RivneOE	57.5	57.5	15%	8%
VinnitsaOE	23.7	58.1	-3%	-13%
KirovohradOE	59.0	59.0	16%	-3%
MykolayivOE	18.6	61.3	-14%	-18%
SumyOE	61.5	61.5	9%	0%
ChernihivOE	63.2	63.2	9%	0%
KhersonOE	71.8	71.8	5%	-2%
CrimeaEnergo	102.8	102.8	-3%	-9%
KievOE	103.6	103.6	22%	11%
LvivOE	105.1	105.1	9%	2%
PoltavaOE	125.6	125.6	1%	-12%
OdessaOE	132.1	132.1	-39%	-43%
KharkivOE	44.9	155.6	-13%	-24%
ZaporizhiaOE	264.5	264.5	0%	-1%
DonetskOE	47.2	281.6	-13%	-15%
KievEnergo	302.6	302.6	6%	0%
DniproOE	72.9	609.4	1%	-2%

Source: company data, Concorde Capital estimates
**** Adjusted for accounting distortions, see pps 34-35***

We blame the absence of a positive scale effect on excessive electricity losses. Excessive losses caused by natural disasters are partially offset by insurance companies and by the state. Companies with deteriorating equipment may qualify for government aid. However, there is no compensation for stolen electricity. As a result, companies supplying more populated regions suffer from higher (uncompensated) losses caused by electricity theft, which impacts their financial performance (see chart below).

A larger population results in more costly controls against theft

Adjusted EBITDA Margin, 2003 vs Population Of The Region Of Supply

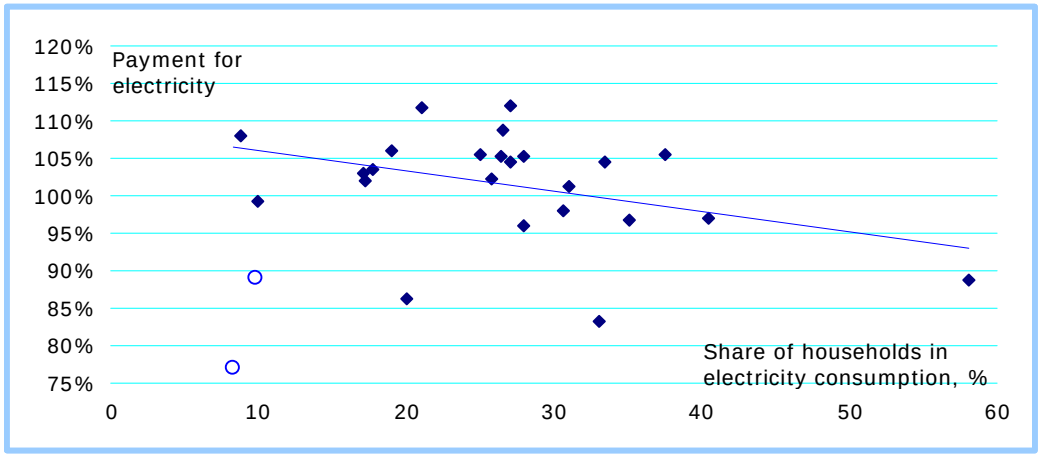


Source: Concorde Capital, EnergoBusiness, State Statistics Committee

In the mid-term, after the problem of outdated equipment has been resolved, larger companies will remain exposed to a higher cost of preventing electricity theft.

An important determinant of efficiency is the percentage of households in the regional electricity consumption structure. Households are among the least disciplined payers.

Payment Discipline 11m2004 vs Share of Households in Consumption*



Source: company data, EnergoBusiness, Concorde Capital estimates
**** The Donetsk and Luhansk regions are outliers (light dots). The low payment discipline of these regions is explained by a large share of coal mines supported by the state, and are the worst payers***

On the other hand, a larger percentage of households in the consumption structure generally results in lower *algorithm leverage*, as was described on page 37. We therefore cannot say that a high percentage of households in the consumption structure is an obvious disadvantage to Oblenergos.

Thus, smaller companies with a higher percentage of residential consumers tend to be more efficient, owing to a lower cost of electricity theft, and lower algorithm leverage. However, they are less efficient in terms of payment collection. Company size itself does not significantly influence performance.

Oblenergo Rankings

We measure the attractiveness of Oblenergos based on several key parameters. For every company, our ranking represents a summary of scores according to the following system:

5 - Top results/ most favorable environment
4 - Good (acceptable) results / moderately favorable environment
3 - Relatively poor results / problems possible
2 - Poor results / company is experiencing problems
0 - Unsatisfactory results / unfavorable environment

Note: Complete financial data is available for 2003 only. Thus, we proceed from the assumption that no major changes occurred in 2004. To control for changes, we have used technical data (such as TWh), which is available for more recent time periods.

Oblenergo Ranking

	State owner-ship	Avg. score	Supply (TWh) dynamics			EBITDA margin 2003			NERC algorithm** Dec04		Excessive losses in grid 9m04			Payment level † 11m2004		Debt/ sales 2003 ‡		Market position sustainability	
			03/02	04/03 11m		report.	adj.*				fact	adj.***							
KOEN	0%	4.7	99%	106%	5	22%	22%	5	100%	4	-0.3%	-0.3%	4	105%	5	8%	5	high	5
ZHEN	0%	4.4	101%	101%	4	18%	18%	5	100%	5	0.1%	0.1%	4	109%	5	10%	5	low	3
SMEN	0%	4.4	125%	101%	4	18%	18%	5	100%	5	1.3%	1.3%	3	117%	5	24%	4	high	5
ROEN	0%	4.3	104%	108%	5	15%	15%	5	100%	4	-0.3%	-0.3%	4	102%	4	8%	5	low	3
KION	0%	4.1	100%	92%	2	16%	16%	5	100%	5	-0.1%	-0.1%	4	112%	5	41%	4	medium	4
PREN	25%	4.1	114%	110%	5	6%	6%	4	49%	3	-1.3%	-1.3%	5	105%	5	39%	4	low	3
LVON	27%	4.1	106%	104%	5	9%	9%	4	27%	2	-1.0%	-1.0%	5	106%	5	60%	4	medium	4
KIEN	50%	4.1	109%	107%	5	6%	6%	4	100%	5	2.5%	2.5%	2	97%	3	0%	5	high	5
TOEN	51%	4.1	101%	98%	4	75%	25%	5	42%	3	-0.2%	-0.2%	4	106%	5	87%	3	high	5
SOEN	25%	4.0	98%	110%	5	9%	9%	4	31%	2	-3.9%	-3.9%	5	105%	5	44%	4	low	3
HMON	70%	4.0	100%	104%	5	7%	7%	4	35%	2	4.6%	-2.4%	4	101%	4	59%	4	high	5
VOEN	75%	4.0	103%	108%	5	9%	3%	3	28%	2	4.3%	-2.7%	4	105%	5	37%	4	high	5
CHEON	25%	3.9	97%	102%	4	9%	9%	4	38%	2	-1.9%	-1.9%	5	102%	4	24%	4	medium	4
POON	25%	3.7	81%	99%	3	1%	1%	2	58%	4	-2.7%	-2.7%	5	108%	5	15%	4	low	3
CHON	46%	3.3	69%	96%	2	10%	4%	3	36%	2	-1.1%	-1.1%	5	112%	5	71%	3	low	3
DNON	75%	3.3	96%	119%	5	12%	1%	2	7%	2	2.2%	-4.8%	4	99%	3	62%	4	low	3
VIEN	75%	3.3	86%	109%	5	-7%	-3%	2	40%	3	6.9%	-0.1%	4	98%	3	123%	2	medium	4
HOEN	0%	3.3	102%	93%	3	5%	5%	3	32%	2	1.9%	-2.1%	4	105%	5	148%	2	medium	4
CHEN	70%	3.1	107%	106%	5	8%	3%	3	28%	2	6.3%	1.3%	3	89%	2	154%	2	high	5
KREN	70%	3.1	102%	114%	5	-3%	-3%	2	25%	2	0.8%	0.8%	4	96%	3	169%	2	medium	4
ZOEN	75%	3.1	101%	106%	5	7%	7%	4	25%	2	9.3%	3.3%	2	83%	2	126%	2	high	5
ZAON	60%	3.0	103%	94%	3	0%	0%	2	8%	2	0.3%	0.3%	4	103%	4	69%	3	low	3
HAON	65%	2.9	96%	100%	4	-43%	-13%	0	25%	2	1.9%	1.9%	3	103%	4	87%	3	medium	4
ODEN	25%	2.3	99%	105%	5	-39%	-39%	0	30%	2	10.2%	10.2%	0	97%	3	140%	2	medium	4
MYON	70%	1.7	101%	97%	3	-45%	-14%	0	14%	2	13.4%	13.4%	0	86%	2	159%	2	low	3
DOON	65%	0.6	60%	80%	0	-76%	-13%	0	14%	2	13.7%	13.7%	0	77%	0	331%	0	very low	2

**** - adjusted for accounting distortions***
***** - cash flow distribution from special account to company's account***
****** - adjusted for possible excessive loss compensation. Companies with losses that can be compensated are given lower scores than companies with similar uncompensated excess losses***
† - payment level for the purchased electricity, 11m2004
‡ - debt to EnergoRynok as of Jan1, 2004 / Sales 2003 (adjusted for accounting distortions)

As expected, the companies that we have identified as "exemplary" from the beginning, are such. They occupy the five top spots. The three lowest-ranking companies significantly lag the remaining companies in terms of their cumulative score. They have a very uncertain future.

Valuation

We use the peer comparison method to get a valuation of Oblenergos. We consider the regional distribution companies of Brazil and Hungary to be the closest peers for Oblenergos, due to the similar structure of the electricity sectors in these countries.

Hungarian and Brazilian regional distribution companies are valued higher than Ukrainian Oblenergos, which is partly due to a less regulated environment, the absence of nation-wide indebtedness, and the higher profitability of Hungarian and Brazilian peers. In terms of technical parameters, Hungarian networks are characterized by significantly lower electricity losses in grids (an average 12.3% in 2003, compared to 21.7% in Ukraine) and a higher utilization ratio. Hungarian networks are 1.5 times shorter than Ukrainian, while they transfer 1.5 times more electricity than Ukrainian Oblenergos.

Hungarian Regional Distributors

	Sales USD mn	EBITDA margin	MCap, USD mn	P/S	EV/S	EV/ EBITDA	Grid length ths km	El. Purchase TWh	P/length USD/m	P/El. USD/ MWh
Demasz rt	332	16%	249	0.75	0.83	5.30	22	4.25	11.3	58.6
Emasz	361	10%	111	0.34	0.58	5.78	22	4.57	5.1	24.3
E.On Del-Durantuli	280	14%	132	0.47	0.57	4.04	24	4.72	5.4	27.9
E.On Eszak-Dunantuli	521	14%	260	0.50	0.61	3.93	30	8.43	8.8	30.9
Elmu rt	701	16%	582	0.83	0.88	5.62	21	10.11	27.1	57.5
Tisz. Aramszolgaltato	343	14%	151	0.44	0.55	3.83	25	4.21	6.2	35.9
Average	**423**	**14%**	**247**	**0.56**	**0.67**	**4.7**	**24**	**6.1**	**10.6**	**39.2**
Median	**352**	**14%**	**200**	**0.49**	**0.59**	**4.7**	**23**	**4.7**	**7.5**	**33.4**

Brazilian Regional Distributors

	Sales USD mn	EBITDA margin	MCap USD mn	P/S	EV/S	EV/ EBITDA
CE Pernambuco	392	21%	220	0.56	1.26	5.9
CFL Cataguazes	330	30%	69	0.21	1.65	5.5
C Piratininga FL	548	14%	263	0.48	0.62	4.5
E Bandeirante E	554	14%	194	0.35	0.69	5.0
AES D Gaucha	306	22%	371	1.21	3.00	13.7
CE Santa Catrina	708	20%	248	0.35	0.30	1.5
CE Matogrossenses	273	21%	38	0.14	0.59	2.8
Average	**445**	**20%**	**200**	**0.47**	**1.16**	**5.6**
Median	**392**	**21%**	**220**	**0.35**	**0.69**	**5.0**

Ukrainian Oblenergos

	Sales* USD mn	EBITDA margin	MCap USD mn	P/S*	EV/S*	EV/ EBITDA	Grid length ths km	El. Purchase TWh	P/length USD/m	P/El. USD/ MWh
Average	**107**	**4%**	**20**	**0.54**	**0.60**	**22.2**	**36**	**4.4**	**2.0**	**13.5**
Median	**61**	**5%**	**12**	**0.53**	**0.52**	**7.0**	**36**	**2.3**	**1.0**	**13.6**

**** Sales are adjusted for accounting distortions***

We do not rely on EV/EBITDA for valuation purposes due to the complex nature of Oblenergo debt, and have used the P/S (EV/S) ratio only.

The apparent disparity between the indications given by the MCap/Electricity and P/S ratios is due to markedly low tariffs in Ukraine. We do not use the P/Electr. ratio for valuations, but see significant growth is locked here to be realized after reforms in the sector are completed, with an upward adjustment of tariffs.

At the same time, the performance of companies such as KievOE, ZhytomirOE, RivneOE and TernopilOE makes them comparable to their foreign peers.

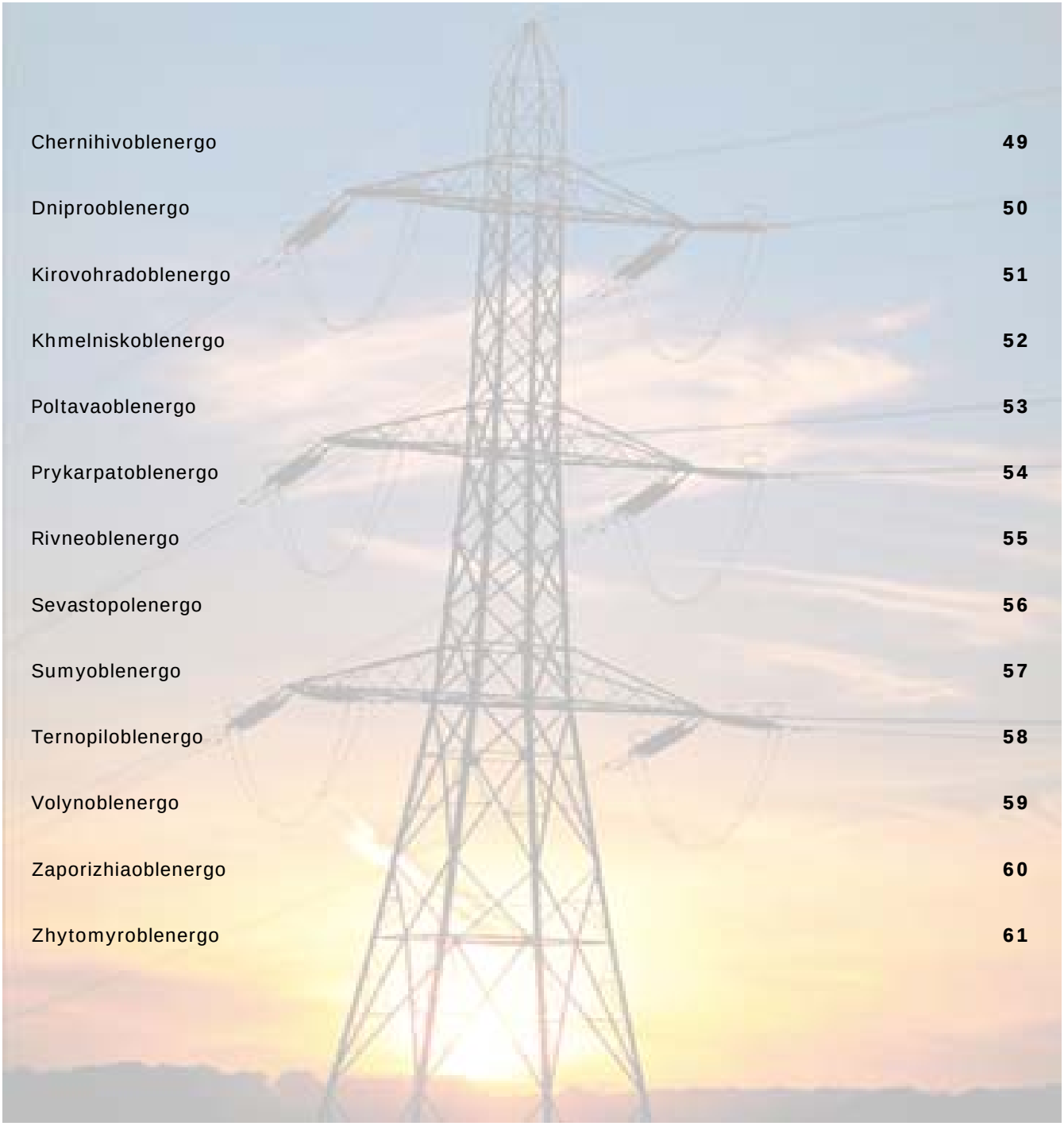
- To account for the unfavorable operational environment, we have applied a 25% discount to the P/S of 0.42 and a EV/S of 0.64 (which we have estimated between Hungarian and Brazillian medians) to set a target for Oblenergos with close to exemplary ranking: scoring 4.0+
- We have applied a 50% discount to OEs scoring between 2.9 and 3.7
- A sell recommendation is issued for OEs scoring below 2.9, without a target

Valuation Summary

	Score	Sales* USD nm	EBITDA margin*	Net margin*	Price, USD	MCap, USD mn	P/S*	P/S* target	Upside by P/S*	EV/S*	EV/S* target	Upside by EV/S*	Average upside	Target price	Comment	Recomm.
TOEN	4.1	36	25%	27%	0.11	6.9	0.19	0.32	66%	0.43	0.48	11%	36%	0.15	the best fundamentals	buy
SOEN	4.0	61	9%	0%	0.10	17.7	0.29	0.32	9%	0.42	0.48	15%	12%	0.11	limited free float	buy
ZHEN	4.4	56	18%	8%	0.40	49.0	0.87	0.32	-64%	0.83	0.48	-42%	-54%	0.18		hold
SMEN	4.4	26	18%	11%	0.66	17.7	0.67	0.32	-53%	0.62	0.48	-23%	-40%	0.40	limited free float	hold
ROEN	4.3	57	15%	8%	0.40	33.3	0.58	0.32	-46%	0.43	0.48	11%	-23%	0.31	is being transformed to closed JSC	hold
PREN	4.1	57	6%	neg	0.25	25.9	0.46	0.32	-31%	0.44	0.48	8%	-13%	0.22	well performing	hold
KION	4.1	59	16%	neg	0.40	47.8	0.81	0.32	-61%	0.85	0.48	-43%	-53%	0.19		hold
HMON	4.0	47	7%	1%	0.20	26.9	0.6	0.32	-45%	0.59	0.48	-18%	-33%	0.13		hold
VOEN	4.0	29	3%	neg	0.07	31.50	1.09	0.32	-71%	1.07	0.48	-55%	-64%	0.02		hold
CHEON	3.9	63	3%	0%	0.28	33.4	0.53	0.32	-41%	0.60	0.48	-19%	-31%	0.19		hold
POON	3.7	125	1%	neg	0.22	48.6	0.39	0.21	-46%	0.52	0.32	-39%	-43%	0.13	operates generating units	hold
HOEN	3.3	72	5%	neg	0.14	13.3	0.2	0.21	13%	0.89	0.32	-64%	-36%	0.09	100% private, weak performance	hold
DNON	3.3	608	1%	neg	40.00	239.7	0.39	0.21	-47%	0.39	0.32	-18%	-34%	26.49	sales erosion risk	hold
CHEN	3.1	28	9%	0%	0.30	17.03	0.61	0.21	-66%	0.53	0.32	-40%	-54%	0.14		hold
HAON	2.9	155	neg	neg	0.32	82.09	0.53	0.21	-60%	0.52	0.32	-38%	-51%	0.16	sales erosion risk	hold
ZOEN	3.1	40	7%	1%	0.25	31.2	0.77	0.21	-73%	0.80	0.32	-60%	-67%	0.08		sell
KREN	3.1	103	neg	neg	0.57	97.9	0.95	0.21	-78%	0.95	0.32	-66%	-73%	0.15		sell
ZAON	3.0	264	0%	neg	1.00	179.4	0.68	0.21	-69%	0.67	0.32	-52%	-61%	0.39	sales erosion risk	sell
DOON	0.6	281	neg	neg	0.99	65.1	0.23	n/m	n/m	0.24	n/m	n/m	n/m	n/a	the worst performance	sell
KOEN	4.7	103	22%	11%	n/a	n/a	n/a	n/m	n/m	n/a	n/m	n/m	n/m	n/a	closed JSC: shares trade prohibited	n/r
LVON	4.1	105	9%	2%	n/a	n/a	n/a	0.32	n/a	n/a	0.48	n/a	n/a	n/a	limited free float	n/r
VIEN	3.3	58	neg	neg	n/a	n/a	n/a	0.21	n/a	n/a	0.32	n/a	n/a	n/a		n/r
CHON	3.3	54	4%	neg	n/a	n/a	n/a	0.21	n/a	n/a	0.32	n/a	n/a	n/a	not traded at PFTS	n/r
ODEN	2.3	132	neg	neg	0.20	41.7	0.32	n/m	n/m	0.29	n/m	n/m	n/a	n/a	not traded at PFTS	n/r
MYON	1.7	61	neg	neg	n/a	n/a	n/a	n/m	n/m	n/a	n/m	n/m	n/a	n/a	not traded at PFTS	n/r

**** Sales and all the ratios are adjusted for accounting distortions***

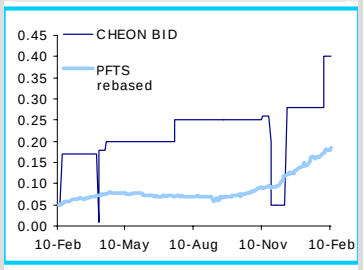
Selected Oblenergo Profiles



Hold

ChernihivOblenergo

PFTS bid, UAH



Market Information

PFTS Ticker	**CHEON**
No of Shares, mn	**119.3**
Market price, USD	**0.28**
MCap, USD mn	**33.4**

Stock Ownership

NC ECU	**25 % +1**
Surkis &Co	**25.10%**
Grigorishyn &Co	**40.00%**
Other	**9.90%**

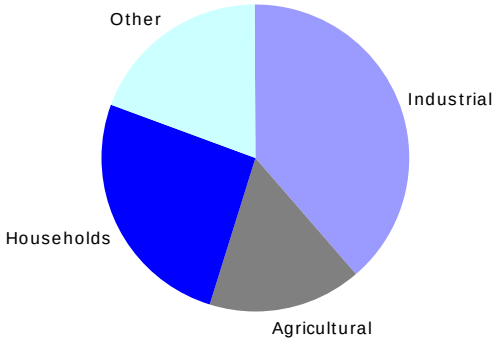
Ratios, 2004E

EBITDA Margin	**12.0%**
EBIT Margin	**1.3%**
Net Margin	**1.2%**
Net Debt/ Equity	**Neg**

The company is not showing outstanding results and is in the middle in all aspects.

Its main consumers are the Chernihiv Chemical Fiber Plant and Gnidensk Natural Gas Processing Plant. These enterprises could potentially defect from CHEON, thereby reducing its sales.

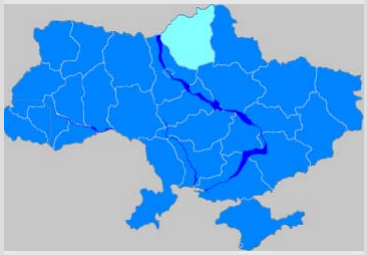
Consumer structure



Source: company data

The company is controlled by two rival business groups, Grigorishyn and Surkis/ Babakov. This adds greater uncertainty to its operations. We hope that the situation will become clear soon. The most probable scenario will be Grigorishyn increasing his influence in the company.

Region:	**Chernihiv**
Population:	1.13 mn
Area:	13,800 km^2



Grid length, ths km:	**37.4**
Transformers total capacity, MVA:	**3,097**
Headcount:	**3,450**
Electricity supply (Est)	
2003, TWh:	**1.34**
2004, TWh:	**1.38**
Industrial tariff, UAH/MWh:	
High-voltage	**206**
Low-voltage	**295**
Gen.capatity, MW	**0.24**

KEY FINACIAL DATA, USD mn

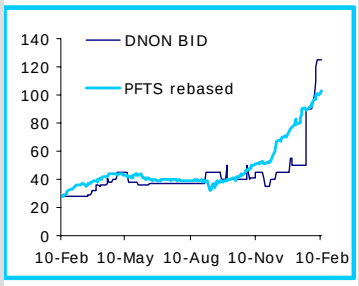
	Net Revenues		EBITDA	Net Income
	reported	adjusted		
2003	63.0	63.0	5.8	0.0
2004E	70.9	70.9	8.6	0.9
2005E	76.6	76.6	10.2	1.1
Spot Exch Rate	5.30			

KEY RATIOS

	P/S	P/E	EV/EBITDA
2003	0.52	n/m	6.34
2004E	0.47	37.11	4.30
2005E	0.44	30.36	3.63

Hold

PFTS bid, UAH



Market Information

PFTS Ticker	**DNON**
No of Shares, mn	**6.0**
Market price, USD	**40.00**
MCap, USD mn	**239.7**

Stock Ownership

NC ECU	**75.00%**
Grigorishyn &Co	**15.98%**
Other	**9.02%**

Ratios, 2004E

EBITDA Margin	**3.8%**
EBIT Margin	**2.4%**
Net Margin	**0.0%**
Net Debt/ Equity	**0.21**

DniproOblenergo

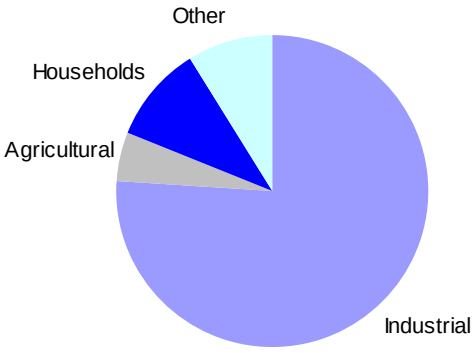
The largest Oblenergo in terms of electricity supply, DNON is located in Ukraine's most industrialized region, where the main metal producing assets and iron ore deposits are focused. Owing to favorable market conditions for metallurgy, the company significantly increase 2004 electricity sales.

Because of its "strategic" location, the company's activity is heavily regulated. Despite the fact that industrial consumers account for 75% of the company's electricity sales in the region, the company's EBITDA margin is rather narrow, mostly because of excessive electricity losses and poor consumer payment discipline.

The NERC has agreed to offset 6% of excessive electricity losses if the company pays in full for the electricity it receives and reduces excessive losses between June 2004 and June 2005 by 3%. We believe the company will meet these requirements and improve profitability.

Metallurgical plants account for 80% of DNON's electricity sales to industrial consumers. The main consumers are Nikopol Ferroalloy, ore enrichment plants located in Kryvy Rih, Dzerzhynsky and Petrovsky metal plants.

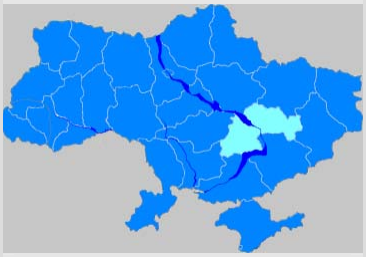
Consumer structure



Source: company data

Given the strategic significance of the Dnipropetrovsk region, DNON's privatization in the next 3-5 years is unlikely. We believe DNON will retain its market position in the mid-term because of its lobbying power in the region, but it will also remain subject to strict regulation.

Region:	**Dnipropetrovsk**
Population:	3.53 mn
Area:	31,900 km^2



Grid length, ths km:	**63.8**
Transformers total capacity, MVA:	**10,920**
Headcount:	**7,631**
Electricity supply (Est)	
2003, TWh	**22.04**
2004, TWh	**26.20**
Industrial tariff, UAH/MWh:	
High-voltage	**178**
Low-voltage	**233**

KEY FINACIAL DATA, USD mn

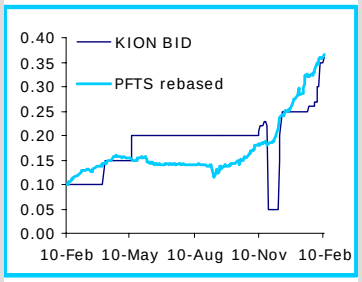
	Net Revenues		EBITDA	Net Income
	reported	adjusted		
2003	72.9	608.2	9.0	-11.3
2004	n/a	715.2	27.3	-17.0
2005E	n/a	729.0	29.2	1.2
Spot Exch Rate		5.30		

KEY RATIOS

	P/S	P/E	EV/EBITDA
2003	0.39	neg	26.29
2004E	0.33	neg	8.66
2005E	0.31	199.72	8.10

Hold

PFTS bid, UAH



Market Information

PFTS Ticker	**KION**
No of Shares, mn	**119.4**
Market price, USD	**0.40**
MCap, USD mn	**47.8**

Stock Ownership

VSEnergy (Babakov)	**94.00%**
Other	**6.00%**

Ratios, 2004E

EBITDA Margin	**18.7%**
EBIT Margin	**neg**
Net Margin	**neg**
Net Debt/ Equity	**0.03**

KirovohradOblenergo

KION's shares were successfully sold twice through tenders in 1998 and 2001. VSE-related parties (presumably the Russian businessman, Alexander Babakov) control the company.

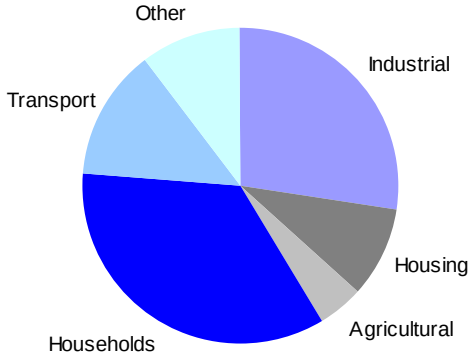
KION belongs to the group of exemplary companies, i.e., those that are restructuring their debts, paying in full for electricity, and reducing losses. The company receives 100% of cash receipts from the distributive account.

It operates four small Hydro PPs, but their output accounts for less than 1% of total consumption in the region.

The company's downside is declining electricity sales in recent, due to the defection of Pobuzk Ferronickel, a major client.

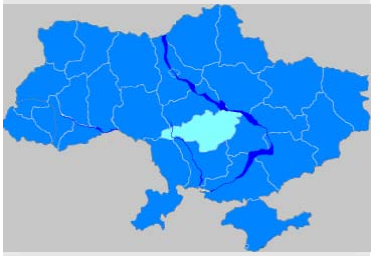
The Kirovohrad region is not industrialized and households are the main consumers of electricity. Aside from the Pobuzk Ferronickel, which started supply electricity by itself, there are no large energy consumers that have reason to defect from the company. We therefore predict that KION's electricity sales will stabilize in the future.

Consumer Structure



Source: company data

Region:	**Kirovohrad**
Population:	1.12 mn
Area:	24,600 km^2



Grid length, ths km:	**34.0**
Transformers total capacity, MVA:	**3,422**
Headcount:	**3,330**
Electricity supply (Est)	
2003, TWh	**1.76**
2004, TWh	**1.60**
Industrial tariff, UAH/MWh:	
High-voltage	**209**
Low-voltage	**332**
Gen.Capacity, MW	**12.3**

KEY FINACIAL DATA, USD mn

	Net Revenues		EBITDA	Net Income
	reported	adjusted		
2003	59.0	59.0	9.3	-1.5
2004E	56.7	56.7	10.6	-0.2
2005E	60.1	60.1	11.4	0.3
Spot Exch Rate	5.30			

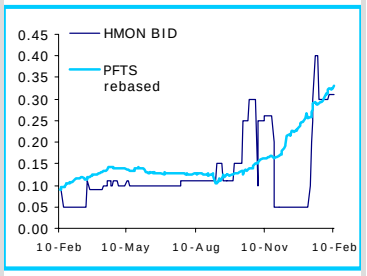
KEY RATIOS

	P/S	P/E	EV/EBITDA
2003	0.81	neg	5.40
2004E	0.84	neg	4.71
2005E	0.79	159.17	4.38

Hold

KhmelnistkOblenergo

PFTS bid, UAH



Market Information	
PFTS Ticker	**HMON**
No of Shares, mn	**134.6**
Market price, USD	**0.20**
MCap, USD mn	**26.9**

Stock Ownership	
NC ECU	**70.01%**
VSEnergy (Babakov)	**11.79%**
Other	**18.20%**

Ratios, 2004E	
EBITDA Margin	**10.1%**
EBIT Margin	**4.1%**
Net Margin	**1.7%**
Net Debt/ Equity	**0.02**

The company has shown the best financial results among non-privatized (state-controlled) companies in the past two years. Its financial performance is on a par with the privatized, exemplary companies, despite the fact that it lost USD 3.6 mn in the winter of 2000 as a result of a natural disaster. All of this is indirect proof of the excellence of the company's management.

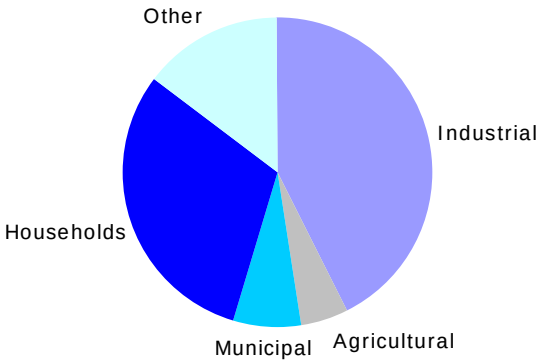
The company's two Hydro PPs with a total capacity of 1.165 MW have been leased to a third party.

HMON's investment program for 2005 is close to USD 9.5 mn, most of which will go toward reducing excessive electricity losses (totaling 4.6% in 9m2004). In addition, HMON will receive compensation for 7% of its excessive losses in June 2004–May 2005, if it manages to reduce excessive losses by 3.5%, which is likely.

The company has a good payment record, which is another requirement it must meet to be reimbursed for its excessive losses. Its electricity sales have remained stable in the past two years.

The region it supplies is characterized by a high percentage of households and the absence of large industrial consumers. This is a stability factor for the company's market position in the future. Its main competitor is Southwestern Railroad, which supplies about 9% of consumers in Khmelnytsk region, but is not likely to increase its presence in the region any further.

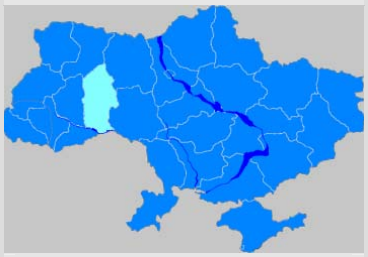
Consumer Structure



Source: company data

In general, the company is one of the most attractive targets during the anticipated privatization of Oblenergos.

Region:	**Khmelnistkiy**
Population:	1.41 mn
Area:	20,600 km^2



Grid length, ths km:	**36.1**
Transformers total capacity, MVA:	**3,018**
Headcount:	**3,820**
Elwectricity supply (Est)	
2003, TWh:	**1.44**
2004, TWh	**1.49**
Industrial tariff, UAH/MWh:	
High-voltage	**202**
Low-voltage	**314**
Gen.Capacity, MW	**1.17**

KEY FINACIAL DATA, USD mn

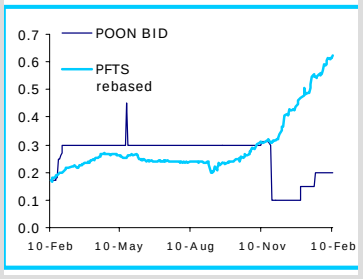
	Net Revenues		EBITDA	Net Income
	reported	adjusted		
2003	46.8	46.8	3.4	0.5
2004E	52.8	52.8	5.3	1.0
2005E	57.2	57.2	6.5	1.2
Spot Exch Rate	5.30			

KEY RATIOS

	P/S	P/E	EV/EBITDA
2003	0.58	59.74	8.07
2004E	0.51	26.91	5.14
2005E	0.47	22.18	4.24

Hold

PFTS bid, UAH



Market Information

PFTS Ticker	**POON**
No of Shares, mn	**221.0**
Market price, USD	**0.22**
MCap, USD mn	**48.6**

Stock Ownership

NC ECU	**25%+1**
Surkis &Co	**25.65%**
Grigorishyn &Co	**39.99%**
Other	**9.36%**

Ratios, 2004E

EBITDA Margin	**4.4%**
EBIT Margin	**Neg**
Net Margin	**Neg**
Net Debt/ Equity	**0.20**

PoltavaOblenergo

This company operates the Kremenchug CHPP, which produces about 30% of electricity supplied by POON. This makes the company relatively independent of of external electricity supplies. In addition, the company is less leveraged by the NERC cash distribution algorithm, as 55% of cash receipts from electricity consumers are channeled into its own account.

A significant amount of its own electricity is reflected in the low level of debt to EnergoRynok.

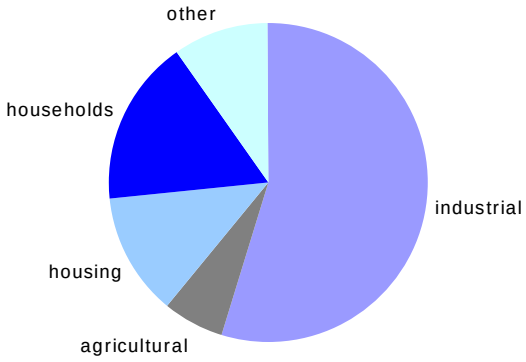
Despite its relative financial independence, the company's profitability is low.

A large generation capacity makes the company more attractive compared to other Oblenergos, as upstream integration is a competitive advantage in the process of continued market liberalization. However, since the region is heavily industrialized and the Kremenchug CHPP is not the only generator in the area, the company's future sales are hard to predict.

Even after the defection of the Poltava Ore Enrichment Plant in 2003, which reduced the company's sales by 20%, industrial consumers account for 54% of its electricity supply.

Its main consumers are UkrTatNafta oil refinery (about 11% of consumption) and Poltava-HazVydobuvannia natural gas production company.

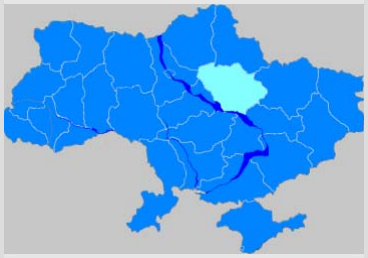
Consumer structure



Source: Company data, Concorde Capital estimates

Two groups (Grigorishyn vs Surkis/Babakov) are competing for control of the company, which is harming corporate governance. The conflict may be resolved in the immediate future, as Grigorishyn is more likely to regain his control of POON.

Region:	**Poltava**
Population:	1.61 mn
Area:	28,800 km^2



Grid length, ths km:	**48.9**
Transformers total capacity, MVA:	**3,959**
Headcount:	**5,700**
Electricity supply (Est)	
2003, TWh	**3.15**
2004, TWh	**2.77**
Industrial tariff, UAH/MWh:	
High-voltage	**198**
Low-voltage	**287**
Gen.Capacity, MW	**255**

KEY FINACIAL DATA, USD mn

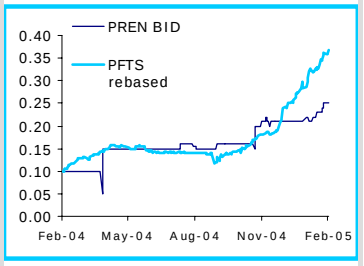
	Net Revenues reported	Net Revenues adjusted	EBITDA	Net Income
2003	125.3	125.3	1.9	-14.6
2004E	127.4	127.4	5.6	-10.9
2005E	129.5	129.5	6.4	-9.4
Spot Exch Rate	5.30			

KEY RATIOS

	P/S	P/E	EV/EBITDA
2003	0.39	neg	35.04
2004E	0.38	neg	11.66
2005E	0.38	neg	10.25

Hold

PFTS bid, UAH



Market Information

PFTS Ticker	**PREN**
No of Shares, mn	**103.6**
Market price, USD	**0.25**
MCap, USD mn	**25.9**

Stock Ownership

NC ECU	**25.02%**
Privat/Babakov	**27.59%**
Grigorishyn &Co	**33.78%**
Other	**13.61%**

Ratios, 2004 (Est)

EBITDA Margin	**10.5%**
EBIT Margin	**4.5%**
Net Margin	**0.2%**
Net Debt/ Equity	**Neg**

PrykarpatOblenergo

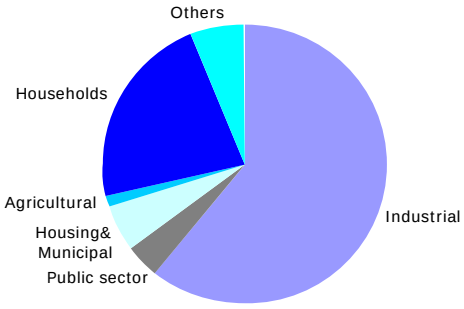
The company has been highly successful in cutting electricity losses during the past several years, despite operating in a region that is one-third mountainous and has difficult climatic conditions.

The company has a high payment collection rate, and its debt to EnergoRynok is declining steadily, which allows to expect its cash flow through the NERC algorithm to increase to 100% in the near future.

Most of PREN's electricity is consumed by industrial companies:

LUKOR chemical plant (8%); Ivano-Frankivsk Cement (3.7%); "Naftokhimik Prykarpattia" oil refinery (2.8%); Bohorodchany Gas Compressor (2.3%); Dolyna-Naftohaz oil company (1.9%). The largest consumers may switch to their own power supply sources.

Consumer Structure



Source: company data

The company is constantly increasing its electricity sales, which is in line with the region's industrial output dynamics.

Annual capital expenditures of about USD 5.3 mn make it possible to reduce steadily excessive losses and upgrade equipment.

Part of Ivano-Frankivsk region is on the territory of the Burshtyn energy island, which is connected to the UCTE, while the remaining part is connected to the UESU. This makes the PREN network less stable, as the electricity voltage in different parts of the region is not synchronized, making it impossible to compensate supply shortages in one part, by tapping into another.

Babakov/Surkis and Grigorishyn related groups have clashed over PREN. A redistribution of influence in favor of Grigorishyn may be expected soon.

Region:	**Ivano-Frankivsk**
Population:	1.40 mn
Area:	13,900 km^2

Grid length, ths km:	**25.3**
Transformers total capacity, MVA:	**2,809**
Headcount:	**2,800**
Electricity supply (Est)	
2003, TWh:	**1.55**
2004, TWh:	**1.71**
Industrial tariff, UAH/MWh:	
High-voltage	**205**
Low-voltage	**314**

KEY FINACIAL DATA, USD mn

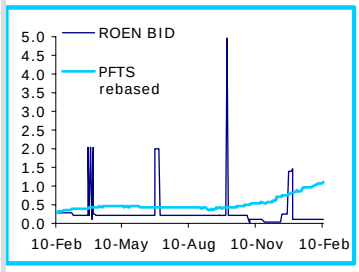
	Net Revenues reported	Net Revenues adjusted	EBITDA	Net Income
2003	56.8	56.8	3.6	-0.3
2004E	66.3	66.3	6.9	0.2
2005E	74.3	74.3	7.1	0.2
Spot Exch Rate	5.30			

KEY RATIOS

	P/S	P/E	EV/EBITDA
2003	0.46	neg	7.02
2004E	0.39	131.40	3.62
2005E	0.35	128.51	3.54

Hold

PFTS bid, UAH



Market Information

PFTS Ticker	**ROEN**
No of Shares, mn	**83.3**
Market price, USD	**0.40**
MCap, USD mn	**33.3**

Stock Ownership

AES Washington Holding	**75.00%**
Other	**25.00%**

Ratios, 2004E

EBITDA Margin	**16.9%**
EBIT Margin	**13.1%**
Net Margin	**7.8%**
Net Debt/ Equity	**Neg**

RivneOblenergo

(AES-Rivneenergo)

After being privatized by the US-based AES energy corporation, the company has become one of the most successful among Ukrainian energy distributors.

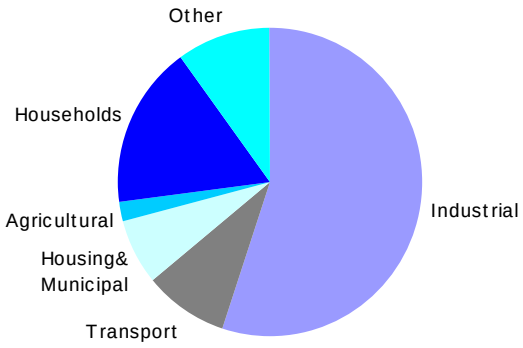
Since being privatized in 2001 (and unlike non-privatized OE), Rivneenrgo's tariff includes a fixed profit component that generates USD 5.34 mn annually.

The company normally pays more than 100% for the electricity it receives as part of a program to restructure its debt to EnergoRynok. As a result, 100% of cash receipts paid into the distributive account were channeled into the ROEN account in 2004. However, because of unstable payment collection level, the company lost this privilege in four out of six last months.

Another AES-owned OE, KievOblenergo, has been reorganized into a closed joint-stock company. Rivneenergo shareholders approved a similar decision at their AGM. The company is still a publicly traded company; however, the main shareholder is ready to buy shares from the minority owners for USD 0.19 per share.

ROEN is reporting steadily growing electricity sales in the region, in line with growing consumption. Industrial enterprises account for 55% of power consumed in the region. All of them but one are small enterprises.

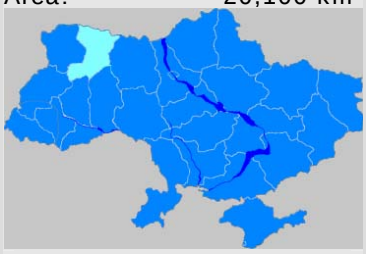
Consumer Structure



Source: company data

The region's biggest electricity consumer, RivneAzot chemicals plant (2.8% of consumption), initiated proceedings to defect from ROEN. Yet the company has managed to hold onto RivneAzot. In the long term, Rivneazot is likely to supply electricity on its own.

Region:	**Rivne**
Population:	1.17 mn
Area:	20,100 km^2



Grid length, ths km:	**25.4**
Transformers total capacity, MVA:	**2,301**
Headcount:	**1,430**
Electricity supply (Est)	
2003, TWh:	**1.80**
2004, TWh:	**1.95**
Industrial tariff, UAH/MWh:	
High-voltage	**197**
Low-voltage	**301**

KEY FINACIAL DATA, USD mn

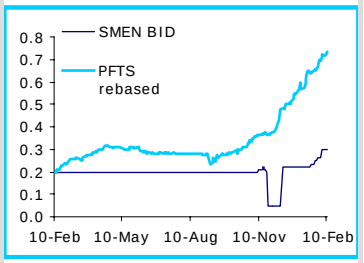
	Net Revenues		EBITDA	Net Income
	reported	adjusted		
2003	57.4	57.4	8.7	4.6
2004E	66.6	66.6	11.2	5.2
2005E	74.3	74.3	12.7	5.8
Spot Exch Rate	5.30			

KEY RATIOS

	P/S	P/E	EV/EBITDA
2003	0.58	7.24	2.85
2004E	0.50	6.41	2.21
2005E	0.45	5.75	1.96

Hold

PFTS bid, UAH



Market Information

PFTS Ticker	**SMEN**
No of Shares, mn	**26.9**
Market price, USD	**0.66**
MCap, USD mn	**17.7**

Stock Ownership

VS Energy (Babakov)	**75.00%**
Other	**25.00%**

Ratios, 2004E

EBITDA Margin	**19.0%**
EBIT Margin	**17.2%**
Net Margin	**11.0%**
Net Debt/ Equity	**Neg**

SevastopolEnergo

SevastopolEnergo services the smallest territorial entity in Ukraine: the city of Sevastopol and its suburbs in the south of the Crimean peninsula.

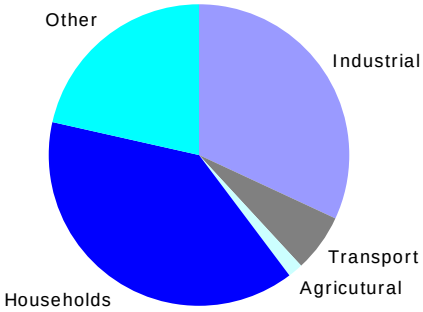
A high rate of payment collection enables the company to progressively reduce its debt to EnergoRynok. Moreover, SMEN is one of the three companies that always meet all the necessary requirements to receive 100% of its cash receipts from the distributive account.

SMEN was privatized by the Slovakian company VSE, which offered to pay 2.88-times the auction asking price. Now it is controlled by business groups affiliated with the Russian football club CSKA (Alexander Babakov).

A USD 2.4 mn profit allowance is included in the company's tariff.

SMEN is the best performing of the four Ukrainian Oblenergos privatized by VSE, and is performing on a par with the companies controlled by US-based AES. The company pays one of the highest dividends in the sector.

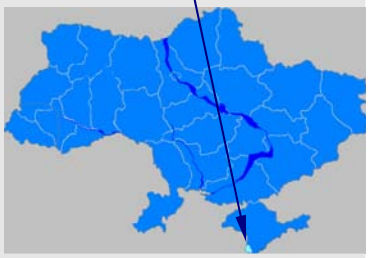
Consumer Structure



Source: company data

The company is steadily increasing its electricity sales. It is possible that SMEN might potentially expand its area of coverage, thereby winning over consumers from Krymenergo. Both distributors have similar tariffs for industrial consumers and are geographically close together.

Region:	**Sevastopol-city**
Population:	380 ths
Area:	900 km^2



Grid length, ths km:	**1.2**
Transformers total capacity, MVA:	**842**
Headcount:	**550**
Electricity supply (Est)	
2003, TWh:	**0.75**
2004, TWh:	**0.76**
Industrial tariff, UAH/MWh:	
High-voltage	**192**
Low-voltage	**294**

KEY FINACIAL DATA, USD mn

	Net Revenues		EBITDA	Net Income
	reported	adjusted		
2003	26.3	26.3	4.6	2.8
2004E	30.4	30.4	5.9	2.9
2005E	36.0	36.0	6.6	3.1
Spot Exch Rate	5.30			

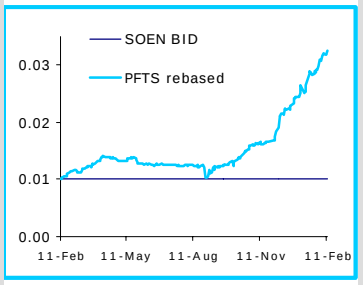
KEY RATIOS

	P/S	P/E	EV/EBITDA
2003	0.67	6.23	3.53
2004E	0.58	6.10	2.80
2005E	0.49	5.71	2.49

Buy

SumyOblenergo

PFTS bid, UAH



Market Information

PFTS Ticker	**SOEN**
No of Shares, mn	**177.1**
Market price, USD	**0.10**
MCap, USD mn	**17.71**

Stock Ownership

NC ECU	**25 %+1**
Surkis &Co	**25.65%**
Grigorishyn &Co	**39.96%**
Other	**9.39%**

Ratios, 2004E

EBITDA Margin	**10.7%**
EBIT Margin	**4.5%**
Net Margin	**0.4%**
Net Debt/ Equity	**0.12**

The company showed one of the best dynamics in electricity sales in 2004, which we expect to continue in the future owing to the positive dynamics of the region's development.

The rate of excessive losses in 2004 was the lowest in Ukraine.

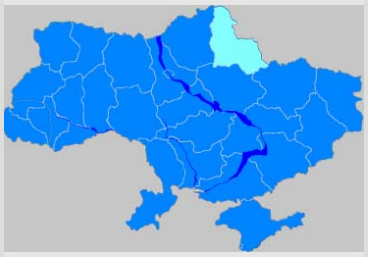
CapEx program of about USD 5.6 mn adopted for 2005 is designed to steadily reduce excessive losses and upgrade equipment.

Its main energy consumer is Sumykhimprom chemicals plant. Another large electricity consumer in the region, Frunze Machine Biulding Plant, uses its own generating facilities.

The company is one of the Oblenergos in which the Grigorishyn and Surkis groups are vying for dominance, which adversely affects its corporate governance. The situation is improving now that Grigorishyn is regaining control of the company.

SOEN stock is illiquid and its last transaction on the PFTS was registered in 2002.

Region:	**Sumy**
Population:	1.28 mn
Area:	23,800 km^2



Grid length, ths km:	**33.3**
Transformers total capacity, MVA:	**3,477**
Headcount:	**3,750**
Electricity supply (Est)	
2003, TWh:	**1.39**
2004, TWh:	**1.52**
Industrial tariff, UAH/MWh:	
High-voltage	**209**
Low-voltage	**295**

KEY FINACIAL DATA, USD mn

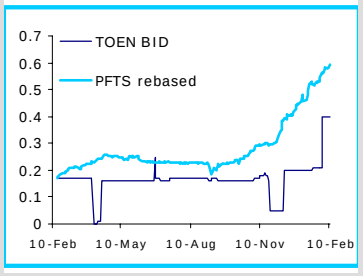
	Net Revenues		EBITDA	Net Income
	reported	adjusted		
2003	61.3	61.3	5.7	0.1
2004E	71.4	71.4	7.7	0.3
2005E	79.9	79.9	8.8	0.4
Spot Exch Rate	5.30			

KEY RATIOS

	P/S	P/E	EV/EBITDA
2003	0.29	171.96	4.45
2004E	0.25	59.04	3.33
2005E	0.22	44.28	2.90

Buy

PFTS bid, UAH



Market Information

PFTS Ticker	**TOEN**
No of Shares, mn	**61.1**
Market price, USD	**0.11**
MCap, USD mn	**6.9**

Stock Ownership

NC ECU	**51.00%**
Grigorishyn &Co	**40.09%**
Other	**8.91%**

Ratios, 2004E

EBITDA Margin	**27.0%**
EBIT Margin	**18.5%**
Net Margin	**7.9%**
Net Debt/ Equity	**0.61**

TernopilOblenergo

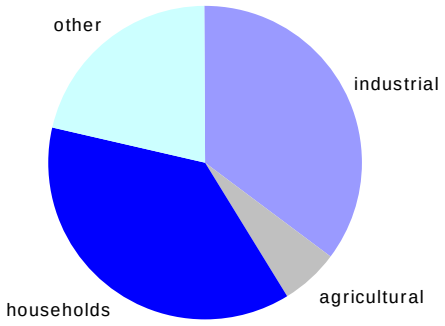
Although TOEN is the smallest among oblasts' monopolists in terms of electricity supply, its (adjusted) EBITDA margin is the highest among all the Oblenergos, and even higher than the average for its international peers.

The company's electricity sales are steadily declining in line with the consumption in the region.

A large debt to EnergoRynok makes the company less attractive. TOEN looks forward to the a government decision to restructure its debt.

The company does not face the threat of competition from potential market entrants. It also does not supply large industrial enterprises whose defection could affect company sales. Its major consumers are the textile union Texterno, Vatra, a cigarette producer, and the Ternopil Agricultural Machine Building Plant. A large percentage of households in its consumption structure guarantees the stability of the company's market position in the future.

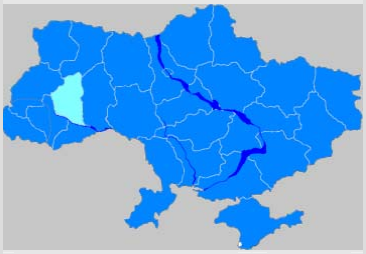
Consumption breakdown



Source: company data

The company will attract significant investor interest when its privatization auction is announced, but only after its debt problems have been resolved.

Region:	**Ternopil**
Population:	1.13 mn
Area:	13,800 km^2



Grid length, ths km:	**24.6**
Transformers total capacity, MVA:	**2,143**
Headcount:	**2,450**
Electricity supply (Est)	
2003, TWh	**0.90**
2004, TWh	**0.88**
Industrial tariff, UAH/MWh:	
High-voltage	**208**
Low-voltage	**318**

KEY FINACIAL DATA, USD mn

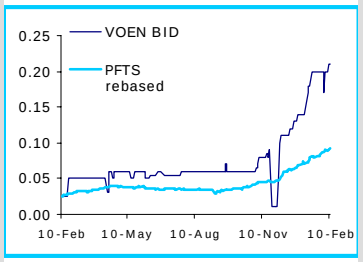
	Net Revenues		EBITDA	Net Income
	reported	adjusted		
2003	11.9	36.5	8.9	3.2
2004E	n/a	37.9	10.2	3.0
2005E	n/a	39.3	10.6	3.1
Spot Exch Rate		5.30		

KEY RATIOS

	P/S	P/E	EV/EBITDA
2003	0.19	2.14	1.77
2004E	0.18	2.30	1.55
2005E	0.18	2.21	1.44

Hold

PFTS bid, UAH



Market Information

PFTS Ticker	**VOEN**
No of Shares, mn	**477.3**
Market price, USD	**0.07**
MCap, USD mn	**31.5**

Stock Ownership

NC ECU	**75.00%**
Grigorishyn &Co	**10.30%**
Other	**14.70%**

Ratios, 2004E

EBITDA Margin	**8.6%**
EBIT Margin	**4.6%**
Net Margin	**1.4%**
Net Debt/ Equity	**Neg**

VolynOblenergo

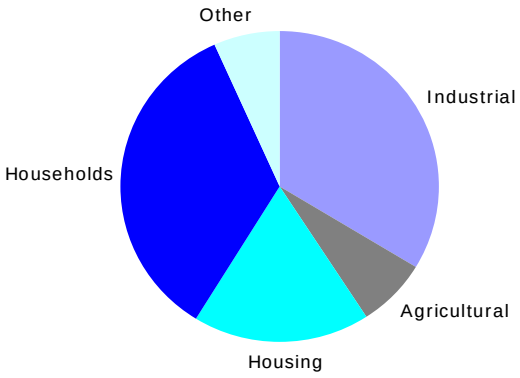
This is a state-controlled company supplying one of the country's smallest and least industrialized regions.

The company has a stable level of electricity sales with moderate profitability margins, which are high compared to other state-controlled Oblenergos. Its debt to EnergoRynok is the lowest among state-controlled Oblenergos, and one of the lowest among all the distributors.

VOEN had a high level of excessive losses (over 4%) However, the NERC will compensate up to 7% of the company's excessive losses in June 2004-May 2005, if VOEN decreases its losses by 3.5% and pays in full for the electricity it receives. It is not clear, however, whether the company will meet these requirements.

A low percentage of industrial consumers in the region's consumer structure makes VOEN's future market position stable.

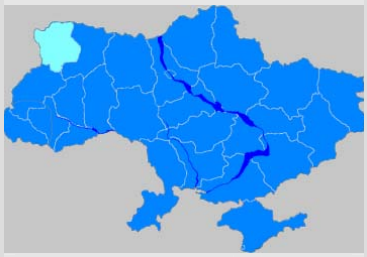
Consumer structure



Source: company data

The company is a good target for potential strategic investors if its privatization is announced.

Region:	**Volyn (Lutsk)**
Population:	1.05 mn
Area:	20,200 km^2



Grid length, ths km:	**25.6**
Transformers total capacity, MVA:	**2,116**
Headcount:	**1,870**
Electricity supply (Est)	
2003, TWh	**0.90**
2004, TWh	**0.97**
Industrial tariff, UAH/MWh:	
High-voltage	**187**
Low-voltage	**292**

KEY FINACIAL DATA, USD mn

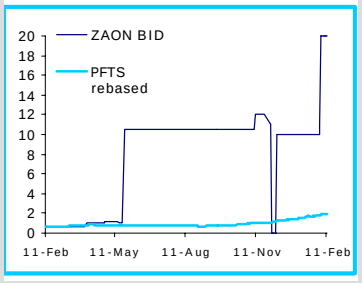
	Net Revenues		EBITDA	Net Income
	reported	adjusted		
2003	9.1	28.9	0.8	-0.5
2004E	n/a	34.0	2.9	0.5
2005E	n/a	38.3	4.2	0.6
Spot Exch Rate	5.30			

KEY RATIOS

	P/S	P/E	EV/EBITDA
2003	1.09	neg	39.78
2004E	0.93	63.00	10.68
2005E	0.82	64.20	7.47

Sell

PFTS bid, UAH



Market Information

PFTS Ticker	**ZAON**
No of Shares, mn	**179.4**
Market price, USD	**1.00**
MCap, USD mn	**179.4**

Stock Ownership

NC ECU	**60.25%**
Grigorishin &Co	**18.67%**
Other	**21.08%**

Ratios, 2004E

EBITDA Margin	**2.2%**
EBIT Margin	**Neg**
Net Margin	**0.5%**
Net Debt/ Equity	**Neg**

ZaporizhiaOblenergo

Ukraine's second largest electricity supplier, the company operates in Ukraine's third largest region.

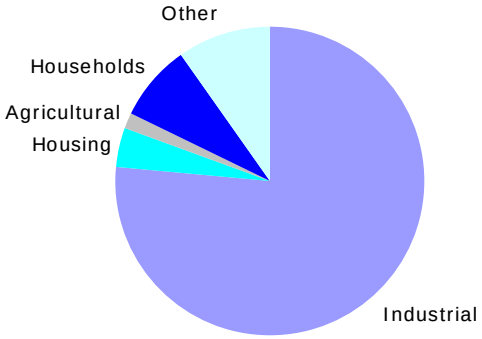
The company is subject to heavy government regulation, which is reflected in its low profitability. This reduces ZAON investment attractiveness.

Its excessive grid losses are the lowest among the suppliers of eastern industrialized regions of Ukraine.

Annual investments in grid maintenance, development and automatization are close to USD 9.8 mn, which is not nearly enough for a company with such a massive infrastructure.

Metallurgy and machine-building are highly developed in the region. The company's main consumer is Zaporizhia Aluminum, which accounts for about 30% of sales. This is more of a headache for the company, since Zaporizhia Aluminum buys electricity at a regulated preferential rate. While the state compensates the company for the resulting shortfalls in receipts, its does so with delays, negatively affecting ZAON's bottom line.

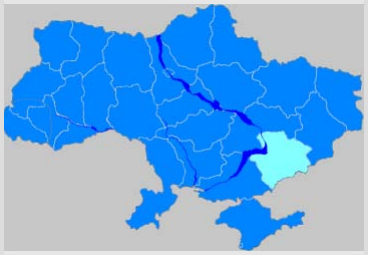
Consumer structure



Source: company data

ZaporizhiaOblenergo is not slated for privatization in the immediate future. It is because of its strategic importance to the state and heavy regulation.

Region:	**Zaporizhia**
Population:	1.91 mn
Area:	27,200 km^2



Grid length, ths km:	**41.0**
Transformers total capacity, MVA:	**9,307**
Headcount:	**5,890**
Electricity supply (Est)	
2003, TWh:	**10.64**
2004, TWh:	**10.00**
Industrial tariff, UAH/MWh:	
High-voltage	**177**
Low-voltage	**217**

KEY FINACIAL DATA, USD mn

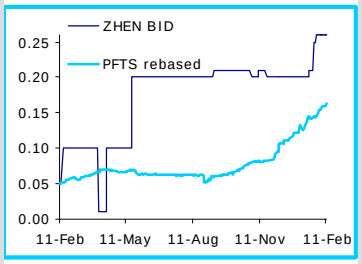
	Net Revenues		EBITDA	Net Income
	reported	adjusted		
2003	263.9	263.9	1.0	-3.1
2004E	251.7	251.7	5.5	1.4
2005E	267.0	267.0	5.7	3.0
Spot Exch Rate	5.30			

KEY RATIOS

	P/S	P/E	EV/EBITDA
2003	0.68	neg	169.73
2004E	0.71	127.74	31.99
2005E	0.67	123.04	30.82

Hold

PFTS bid, UAH



Market Information

PFTS Ticker	**ZHEN**
No of Shares, mn	**122.4**
Market price, USD	**0.40**
MCap, USD mn	**49 .0**

Stock Ownership

VS Energy (Babakov)	**91.61%**
Other	**8.39%**

Ratios, 2004E

EBITDA Margin EBIT	**18.7%**
Margin	**13.3%**
Net Margin	**7.7%**
Net Debt/ Equity	**Neg**

ZhytomyrOblenergo

Privatized by VSE (Slovakia) in 2001, the company is controlled by the Russian business group controlled by Alexander Babakov.

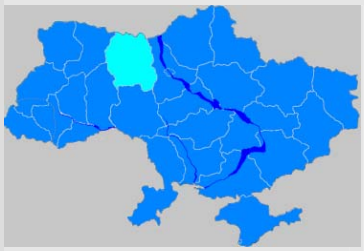
As a company privatized in 2001, it has a fixed USD 6.0 mn profit allowance included in its tariff.

ZHEN is servicing one of the most stagnant regions in Ukraine, so its electricity supply has not increased last two years. However, this does not affect its financial stability, as the company has one of the lowest debts and widest profit margins among all Oblenergos.

Given its good payment record, ZHEN has 100% of its cash receipts channeled from the distributive account into its own account every month.

Its main consumers of electricity are the Irshansk Ore Processing Plant (licensed as an unregulated-tariff electricity supplier) and the Zhytomyr Chemical Fiber plant. The defection of Irshansk will cause ZHEN sales to drop further in the near future. However, we believe that the company's profitability will remain high.

Region:	**Zhytomyr**
Population:	1.37 mn
Area:	29,900 km^2



Grid length, ths km:	**37.9**
Transformers total capacity, MVA:	**3,270**
Headcount:	**3,630**
Electricity supply (Est)	
2003, TWh	**1.65**
2004, TWh	**1.67**
Industrial tariff, UAH/MWh:	
High-voltage	**206**
Low-voltage	**330**

KEY FINACIAL DATA, USD mn

	Net Revenues		EBITDA	Net Income
	reported	adjusted		
2003	56.4	56.4	10.2	4.3
2004E	61.4	61.4	11.5	4.7
2005E	64.1	64.1	12.3	4.9
Spot Exch Rate	5.30			

KEY RATIOS

	P/S	P/E	EV/EBITDA
2003	0.87	11.28	4.62
2004E	0.80	10.42	4.09
2005E	0.76	13.08	3.84

Appendix

Technical Profile

Name	Ticker	Transform capacity	Grid length	Regional populat.	Region area	Headcount	Electricity supply TWh	
		GVA	ths km	mn	ths sq km	ths	2003	2004E
DonetskOE	**DOON**	14.21	73.8	4.77	26.50	10.40	9.82	7.82
DniproOE	**DNON**	10.92	63.5	3.53	31.90	7.63	22.04	26.20
ZaporizhiaOE	**ZAON**	9.31	41.0	1.91	27.20	5.89	10.64	10.00
LuhanskEU	-	9.13	2.51	2.51	26.70	n/a	7.81	6.91
KharkivOE	**HAON**	7.34	42.0	2.89	31.40	7.18	4.66	4.65
CrimeaEnergo	**KREN**	5.92	35.8	2.13	26.10	6.58	3.18	3.62
OdessaOE	**ODEN**	5.57	47.6	2.45	33.30	6.39	4.14	4.37
KievOE	**KOEN**	5.12	48.0	1.81	28.10	3.45	2.99	3.15
LvivOE	**LVON**	4.50	39.2	2.61	21.80	4.62	3.13	3.26
KhersonOE	**HOEN**	4.50	33.3	1.16	28.50	3.58	1.95	1.82
PoltavaOE	**POON**	3.96	48.9	1.61	28.80	5.69	3.15	2.15
CherkasyOE	**CHON**	3.73	37.3	1.39	20.90	3.59	1.62	1.56
VinnitsaOE	**VIEN**	3.72	48.4	1.75	26.50	4.93	1.66	1.82
SumyOE	**SOEN**	3.48	33.3	1.28	23.80	3.76	1.39	1.52
MykolayivOE	**MYON**	3.43	32.1	1.25	24.60	3.55	2.05	1.98
KirovohradOE	**KION**	3.42	34.0	1.12	24.60	3.34	1.76	1.60
ZhytomyrOE	**ZHEN**	3.27	37.9	1.37	29.90	3.63	1.65	1.67
KievEnergo	**KIEN**	3.27	10.2	2.62	0.80	15.93	6.98	0.30
CernihivOE	**CHEON**	3.17	41.0	1.23	31.90	3.45	1.34	1.38
KhmelnitskOE	**HMON**	3.02	36.1	1.41	20.60	3.82	1.44	1.49
PrykarpatOE	**PREN**	2.81	25.3	1.40	13.90	2.80	1.55	1.71
RivneOE	**ROEN**	2.30	25.4	1.17	20.10	1.43	1.80	1.95
ZakarpatiaOE	**ZOEN**	2.28	17.4	1.25	12.80	2.65	1.32	1.33
TernopilOE	**TOEN**	2.14	24.6	1.13	13.80	2.45	0.90	0.88
VolynOE	**VOEN**	2.12	25.6	1.05	20.20	1.87	0.90	0.97
ChernivtsiOE	**CHEN**	1.44	17.3	0.92	8.10	1.31	0.91	0.96
SevastopolEnergo	**SMEN**	0.87	1.2	0.38	0.90	0.55	0.75	0.76

Source: company data, Concorde Capital

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