

## *What next for RAO UES?®*

It would seem that passage of the necessary legislation in Russia to begin the process of restructuring the electricity sector is nearing certainty. This means that the near-monopoly provider (United Electric Systems, or RAO UES) of electricity, as well as one-third of the heat, used by Russians is about to start the process of restructuring. (Summary information about UES can be found at the end of this document.)

The legislation itself is complex, and implementing it will be even more complex. The idea is simple. Eventually, UES will cease to exist. It will divide itself into separate companies: the transmission grid, electricity generation (to be dismantled into ten separate new generating companies), a marketing company, and a system operator.

It is easy to think that this will simply be a spin-off of UES' residual ownership in the present regional electricity generation companies, or Energos. That would not be correct. There are presently a large number of Energos (of which ten are considered "major"), in which UES has stakes ranging from less than 50% of the shares up to 100% of the shares. Likewise, there are a number of "federal level" power plants that are also part of the UES firmament. The federal level plants are owned by UES, not by the Energos.

Since the legislation mandates that no generating entity may constitute more than 35% of the generating capacity in any market area, the restructuring would appear to contemplate transferring the generating assets into the new generating companies with a geographic diversity of plant locations, leaving the Energos with what we are not sure.

One of the reasons this restructuring process has been delayed for so long has been the concern of the minority shareholders in both UES and in the Energos that they will be left with nothing and receive little or no compensation. Although it now appears that a constructive dialogue on this subject is underway, it still is not apparent how this issue will be handled.

The Russian government is the largest single shareholder in UES – 52.55%. However, the shares of UES are also internationally traded. This process is being closely watched in a number of markets in Europe and the US. This means that the government has some constraints on what it might want to do. The recent BP – TNK deal and the impending Gazprom bond issue, evidently over-subscribed, show that Russia is coming back strongly in the world financial markets. We doubt that the Russian government would intentionally endanger that return to grace. Therefore, although the process may not be pretty, we anticipate that the minority shareholders will get proper compensation.

The problems of restructuring UES, however, are a lot more complicated than solving the problems of the minority shareholders. Even after the assets have been redistributed, and the rights of the minority shareholders taken care of, the process faces enormous barriers.

Another cause of delay in the legislative process has been social pressure. Electricity is presently being sold to the public at prices that do not reflect economic reality. According to the RAO UES Annual Report (available on their website) in the year 2001 consumers paid an average of 33.79 kopecks per kWh, or about 1.2¢/kWh. The thermal power plants in the UES family of plants received, on average, 36.96 kopecks

(1.3¢)/kWh. (Industrial customer presently subsidize consumers by paying an average of 48.98 kopecks (1.75¢)/kWh.)

According to the Annual Report, UES is paying, on average, about \$15 per tonne for coal, and about \$21 per thousand cubic meters for natural gas (the principal fuel). Neither of those price levels is sustainable, so both must rise. Gazprom is presently receiving around \$100 per thousand cubic meters for exported gas ("European price"), and has stated that it needs no less than \$45 per thousand cubic meters for natural gas being sold in Russia to UES' power plants. Presently, natural gas exports seem to be subsidizing the domestic gas market.

Therefore, it seems to us that UES is already in a terrible squeeze. The price being paid to the power plants is already so low that it barely covers its cash costs, with no allowance for new investments or amortization, and certainly little if any return to the shareholders. But, the cost of the principal raw material (fuel) is bound to rise; the amount of rise could be as much as to reach double the present price for both coal and gas.

Moreover, the power plants are already aged, operating with an overall, average generating efficiency of 26%, and are in need of repair. (Generating efficiencies in modern plants range from 40% to 50%.)

In short, electricity prices will need to rise to cover increase rational fuel costs plus pay for the installation of new equipment and facilities.

Pan EurAsian's experience in other parts of the post-Communist world with this problem show us that the social pressures against price increases are very strong. The Russian legislation provides for the government to retain control of retail prices until 2008.

We believe, therefore, that a massive restructuring program, followed by a massive repowering and investment program is simply not going to happen in a hurry.

In November, Pan EurAsian expressed the opinion that the idea presented at a conference in Boston by UES of using management contracts was a good idea. We continue to hold that belief. Our experience also tells us that many improvements in operating efficiency and reliability can be made using simple and inexpensive measures. The problem is not that the present managements cannot think up such measures, but rather that there is neither the incentive nor the management culture in the generating companies to do so. New management structures, using contracts with experienced western operators, would infuse into these companies the kind of incentives and focus needed to get some of those improvements without delay. The more grandiose repowering plans can be implemented later when there is social room in tariff structures to allow for realistic prices on the retail level.

We suspect that it was just this kind of logic that led RAO UES to suggest at the Boston conference that management contracts should be considered. We expect to see something happen on those rather soon. The whole restructuring process will be legitimized by the first step. It makes sense that this would be a management contract with an operator whose credentials are without question up to the task. The planning and negotiating for such a first step are bound to start soon.

## RAO UES Basic Facts

Physical	units	amount	share of Russian market
Total Installed capacity	MWe	156,100	73%
fossil-fueled	MWe	122,000	82%
hydro-electric	MWe	34,100	76%
Total length of transmission lines	'000 km	2,530	
Electricity production 2001	TWh	626.8	71%
-of which, thermal	TWh	501.0	87%
Heat production in 2001	Gcal	479.6	33%
Coal consumed	'000 tonnes	109.6	
Gas consumed	billion cubic meters	131.2	
Average number of employees		664,796	
			approx. USD equivalent, millions
<b>General results for 2001 in millions of Roubles</b>			
Total revenues		400,054	\$14,288
electricity		296,127	10,576
heat		72,258	2,581
transmission fees		1,194	43
governmental assistance		3,297	118
other		27,178	971
Net profit retained by RAO UES		12,777	456

Note: The above data apply to all the companies owned wholly or in part by RAO UES. They do not reflect the percentage claim that RAO UES may have on these data due to less than 100% ownership.

Source: [www.rao-ees.ru](http://www.rao-ees.ru)