

## **Summary of the audit on the electrical energy supply system (0740)**

The audit goal was to assess whether a smooth operation of the electric energy production and provision activities at a reasonable price level was adequately ensured by the operational arrangements of, and changes to the electric energy system, the public governance, the division of governmental tasks and the ownership arrangements for production and provision activities.

A 1993 National Assembly Resolution and another document on the fundamentals of the national energy policy and on the business model for energetics provided the foundation for Hungary's national energy policy. The latter document included detailed plans only up to 2002; an updating on the short policy statements for the period 2002-2007 has failed. The determining factor is that primary energy carriers are scarce in Hungary. The actions by government and the economic processes resulted in one-sided economic structures relying mostly on natural gas. The natural gas import comes on a single route (from Russia); the connected risk was highlighted by the two breakdowns in natural gas delivery in 2006. Sources of renewable energy (e.g. biomass, wind energy) help replace hydrocarbons and their utilization is receiving more and more attention. When accessing the EU Hungary made only a minor pledge in this respect; namely to increase to 3.6 % the share of biomass-based electric energy in the total produced electric energy until 2010. Mainly due to the expanded utilization of firewood a 5.9 % rate was achieved already in 2005. Utilization of wind energy was promoted by a 2005 amendment to the Act on Electric Energy, which set a high compulsory price for purchasing such energy. As a result, in 2006 permits were submitted for the construction of wind power plants with a total capacity of 1800 MW. However, the ability to regulate them is restricted due to their dependence on the weather conditions, therefore the Hungarian Energy Office set a 330 MW cap on the production capacity of an individual wind power plant.

Electric energy production and import could safely satisfy the domestic consumption and the need for necessary reserves. However, as of 2006 the growing total need could be met only by an increasing import share. In total the utilization of the power plant production capacities decreased, master power plants were not built, and generally it was not reasonable to establish high-capacity power plants that allow also for electric power reserves, because of the extent of available electric power reserves. The existing regulation and financial assistance system mostly promoted the establishment of minor power plants. In consequence of these factors, as of 2005 the ability to regulate ("control") the sudden changes in the load of the electric power plants or the breakdowns was getting worse because of the growing share of less flexible plants and of power productions that are only restrictedly or not regulatable. According to a 2007 analysis by MAVIR ("Hungarian Transmission System Operator Company Ltd", the corporation in charge of operating the electric power supply system), the supply system does not comply with the requirements on quality and supply

safety in 40 % of the year (i.e. 9-10 hours a day in average). The operational risks are highlighted by a 2007 major malfunction causing a 40-minute long energy limitation and by the extremely hot weather in the summer 2007, a time when the power plants of the country were used at full capacity. The loss rate of the wires network was high, even in international comparison, and amounted to 10 %. The development projects for its reduction are not attractive in terms of rate of return because the losses can be charged for as a cost component, the monetary amount of electricity losses can be incorporated in the electricity rates. Despite these they managed to reduce the losses through wires network enhancements of other kinds.

Economic background and operational arrangements of the electric energy system, the prices, and the business opportunities of the “competitive area” were basically given by the long-term electricity purchase agreements (LTEPA), which were concluded between MVM Ltd. (Hungarian Power Companies Ltd.) as wholesaler and the power plants during the privatization process of the mid 90's. LTEPAs cover 70 % of the electric energy production, and ensure that the power plants receive profits of a certain extent and that energy supply is basically safe.

The charge for electric power generally increased, e.g. from 2003 to 2007 the price payable by households increased by 45 %. This was due to the changes in energy carriers, producer prices, applied pricing practices and the fees and taxes. The own revenues of the Energy Office arose as a result of the fee incorporated into the prices. However, these revenues were subject to the obligation to contribute to the country's budget. The so-called “Compensation Fund”, being part of the system operation fee ensured a high purchase price for the production of electric power subject to compulsory purchase. Its amount rose to HUF 47.4 billion by the end of 2006. The price applied to the public utility area was favorably influenced by the cheap electric power produced by the Paks Nuclear Power Plant and accounting for 35 % of the domestic production. This allowed for a cross-funding of the higher prices, and expensively producing power plants could remain in competition.

In accordance with the relevant EU-Directives Hungary also entered the obligation to liberalize its electric power industry. As a first step, the switch to the “two level market model” took place on 1<sup>st</sup> January 2003. From then on the two sections of the electricity market, namely the public utility area and the competitive area have been co-existing. The separate prices of the two areas appeared side by side.

The engineering and economic toolkits of the electric energy system have contradictions and drawbacks, which badly affected the operation of the two-level market model and the extent to which the market liberalization was prepared.

The scope of the newly emerged competitive area was narrowed by the limited energy quantity beyond the energy production capacities subject to the LTEPAs.

In addition, the price formulas, as set out in LTEPAs prevented that realistic prices be used, which reflect the market conditions. Equal opportunities for the different market players were not in place, because power plants, which concluded LTEPAs and produced and delivered energy subject to compulsory purchase, carried the lowest risks. On the partly open market of Hungary the prices were influenced, basically by LTEPAs and changes in the pricing model and were not essentially influenced by the competitive area, which is limited in its scope. This is reflected by the events, which took place when the competitive area prices went beyond the public utility area prices. Namely, at the customers entitled to opt between the two areas, a part returned to the public utility area twice in the audited period, because the imported energy was more expensive. Consequently, the energy production capacities bound by LTEPAs have become redundant and had to be auctioned – with losses. MVM Ltd was compensated for the losses with a payment from the amount of the system operation fee; the legal title for the disbursement was “changeover expenses”. The power plants were not affected by these losses.

Concerning different components of the two-level market model, the European Commission initiated 3 procedures on the grounds of alleged governmental assistance for LTEPAs and breach of commitment. Each procedure was separate from the other and still going on at the end of the site audit. They were progressing slowly because of the delays by the concerned government departments. The Government set up a committee only in 2007 to manage the LTEPAs and contribute to the EU procedures. In return for a lifting of the LTEPAs, the power plants required to receive huge compensations, the respective negotiations are still going on.

The Electricity Directive 54/2003 of the EC stipulated with binding effect also for Hungary that a full market opening should be introduced as of 1<sup>st</sup> of July 2007. From this date on each consumer should be allowed to opt freely between the different electricity providers. The public governance was late in preparing this switch. The Hungarian National Assembly passed the latest amendment to the Act on Electric Energy (Nr. 110/2001) in June 2007, but entered it into force only on 15<sup>th</sup> October 2007. Nevertheless, the free choice of the electricity provider will be ensured only with a half-year delay, in 2008. At the publication of the amended Act the issue of renegotiating the LTEPAs has not been settled yet. Concerning the impacts of the open market on the economy and households, it gives cause for concern that in certain cases the government and the market players had different views and different analyses on certain issues detailed in SAO’s full-version audit report (issues like partial market opening, the stance on LTEPAs, incentivization for development projects), and they failed to take adequate actions to reconcile the conflicting views, analyses. Based on the SAO’s audit findings, it can be stated that an open market requires the participation of nationally-owned corporations in the interest of adequately managing the prices, the system of agreements, contracts, and the operation of the supply system. At the same arrangements must be made to protect consumers, who are socially indigent, or not able to counterbalance the adverse impacts. Different factors, like the expectable decrease in the surplus production capacities, the

obsolescence of economic assets, and the need to have electricity reserves make it necessary to establish an additional production capacity of 6000 MW however the issue of government engagement and/or of market engagement is disputed. This uncertainty is confirmed by EU experiences: in Germany the total investment decreased by 26 % after opening the market, but in Finland the private investors set up a nuclear plant. The LTEPAs must be carefully managed, with special respect to the claims for compensation for damages, to be met by the Hungarian budget, and to the possibility of consumer prices getting out of control. The subject matters, on which the European Commission initiated procedures, deserve attention. Concerning the expected impacts of market opening on consumers, a relevant EU report stated that the liberalization had brought rather an increase in the prices and that where the price had decreased, the households did not opt for another electricity provider. European surveys, opinions also raised concerns about the operating ability of the open energy market and about the dependent status of the system operation as a function. This is an important issue for Hungary as well, because the system operator corporation MAVIR Ltd is owned by MVM Ltd, therefore MAVIR's independence is questionable despite that it developed a so-called "Compliance Regulation" with the aim to introduce an equal opportunities policy for all market players.

Based on its audit findings the SAO developed recommendations for the Government and the Minister of Economy and Transport. The recommendation regarded by the SAO as the most important stipulates that in the interest of optimizing long-term impacts, the national analyses and European experiences on market liberalization should be treated with special attention when developing decrees on how to implement the Act (Nr. 110/2001) on Electric Energy. In addition, the SAO stressed that the renegotiation on LTEPAs should result in business decisions that comply with EU-rules, do not load burden on the Hungarian budget and pay attention also to the consumers' interest.