

## «Our goal is to gain access to the best global technologies»



Atomenergomash Holding (AEM) was founded in 2006 to recreate the Soviet Ministry of Middle Machinery Production that used to supply the equipment for the nuclear energy industry. Now AEM is an affiliate of Rosatom, a state corporation, and unites about 40 Russian and foreign companies. According to its general director Vladimir Kaschenko, the general framework for the holding has been made already. VLADIMIR KASCHENKO told MILANA CHELPANOVA from The RBC-daily about the company's purposes and expectations from international cooperation.

— **AEM has proactive cooperation relations with foreign companies, like Alstom, Toshiba. Can you assess the results of this cooperation so far?**

— AEM and Alstom signed a memorandum of understanding in December, 2010. It was done for the development of Alstom-Atomenergomash, a joint venture founded in 2007.

For instance, Atomenergomash and Alstom have agreed to build a factory for steam turbines production in Russia on the base of the existing factory ZiO-Podolsk. Arabelle steam turbines will be produced for nuclear power plants, and steam turbines of a higher capacity will be produced for Russian heating power plants, including turbines for ultra supercritical energy units.

The agreement was reached even earlier, but the memorandum was postponed for later due to the crisis. Now we have reached the final agreement. We plan to expand the range of products to be produced by the joint company: turbines for ultra supercritical energy units will be also included. Production of turbine equipment will make AEM supplier number one for the machinery units of nuclear power plants and of state-of-the-art generators for heating power plants. However, this expansion will not make investment expenses higher. We will produce steam turbines using the same equipment.

We also plan to increase the equity of the joint company. At the moment we consider Inter RAO to join Alstom-Atomenergomash.

Together with Toshiba we continue discovering of possible joint businesses for initiation of investment and commercial projects in such segments as equipment for nuclear power plants, boiler and turbine equipment for ultra supercritical steam parameters, metallurgy, and power transmission and distribution equipment.

Our goal for the cooperation with foreign companies is to gain access to the best global technologies. But we do not just gain the access, we adapt the technologies to the local market, or, if I may say so, Russianize them. This is what we offer to our foreign partners.

In turn, foreign companies are interested in AEM for promotion of their products.

— **What other foreign companies, besides Toshiba and Alstom, do you plan to cooperate with? Are there any discussions going now?**

— We have a lot of projects in India, and some in Brazil. In India we are interested in projects for local construction of energy equipment, nuclear, first of all. A nuclear power plant designed in Russia is being constructed there. We are also interested in the local heating generation market. So far it is based on coal only.

In the first quarter of 2011 we will finally choose the partners for local production projects in India and form a new joint company. The company will produce the equipment range for the reactor island and some supportive equipment (pipeline, fittings, pumps). It means that we will come to India with the products that they need. Now we have discussions with leading companies and newcomers in this industry that can be more flexible, more aggressive on the market.

Brazil is also a growing market we are very much interested in. However, so far only in respect of heating generation, metallurgic machinery, and energy equipment production in general. At present it's too early to talk about foundation of joint companies, as we plan the commercial cooperation. Within three–five years projects in nuclear energy may also appear in Brazil.

Cooperation in equipment production for nuclear and heating energy, and oil and gas industry is possible on the Turkish market as well.

Moreover, AEM keeps on cooperating with energy companies in Korea, Italy, Spain, Germany, other Western and Eastern European countries, CIS, and Africa both in commercial interaction and implementation parts, and in establishment of strategic partnership relations.

We consider our company as a leader in the Russian heating energy industry. We work together with such global leaders as Alstom, Doosan Babcock, Ansaldo, NEM. These are the technologies we will try to transfer and adapt for projects in Russia. All these projects are at different stages now: for some projects there will be joint companies founded, for others – license agreements or commercial cooperation established. We don't aim to found joint companies with all our partners, but we aim to get the best technology in the world and adapt in to Russia.

**— What is the situation with Russian technological base? Are there any know-how's that can be used for energy equipment production or are there only foreign technologies to save the industry?**

— Energy equipment production is the most advanced machinery production in Russia. If we talk about the nuclear equipment production, our technologies are probably the best in the world.

For example, the Russian technology of fast breeder reactors is the best in the world. ZiO-Podolsk is the supplier of the whole set of equipment for БН-800 (a fast breeder reactor), that is what we can boast of.

For further proactive development we plan to acquire the best technologies in spheres where we lack those, like the production of wind turbines. Therefore, we are in negotiations about technology transfer with our potential partners – producers of such equipment. For this purpose we have chosen the basic production facility – Petrozavodskmash. The factory had an order from Siemens about the production of some parts for wind generators once, so this is the most appropriate facility for local production of wind generators with the European technology. We have a short list of five companies we are negotiating with. By this spring we will choose the partner.

**— Head of Rosatom Sergey Kirienko was speaking about development of the nuclear industry abroad and said that Russian manufacturers of energy equipment often lose out to their foreign colleagues. Do they?**

— Unfortunately, our energy production still loses out to western companies in performance and efficiency. We have a lot of work to do. All our major factories are in a process of technological modernization now.

The main project in this sphere is to produce key equipment for the nuclear island (reactors, steam generator cases, pressure compensators, etc.) by Petrozavodskmash facilities. The investments into the project are about 85 million euro. It is planned to acquire horizontal-boring mills, turning-and-boring lathes, press brakes and other equipment. The project is planned for 4 years. The first stage is to be completed in 2012. By this time the existing machinery halls will start production of cases for steam turbines. The second stage is to be completed in 2013, the existing trestle will be closed and replaced by a production workshop. And the first reactor unit – the case, internal devices, the upper unit - will be produced in 2014 already.

The second project is the production of turbine generator equipment by ZiO-Podolsk. The investment costs will be about 15 billion rubles. In 2014 the project will start. Other facilities of AEM have been replacing the old equipment by the new one.

The modernization program will be permanent, but we must complete the main work within coming 2-3 years. It will increase the production capacity. Now we are oriented at production of 1.5 set of energy equipment a year. After the modernization program has been completed, we plan to produce up to three sets a year.

Moreover, we have been implementing the lean production program based on Rosatom production system. The performance increases by several times even at the first-second stages of implementation. AEM is a managing company, and our board's goal is to create an effective management system and to make our facilities meet the highest international standards.

**— Recently AEM has announced its intention to enter the wind energy market. Does the company plan to go further and enter other alternative energy industries?**

— We decided to begin with the wind generation, as this technology is the most commercialized and mature in the alternative energy sector. AEM plans to move in two main directions in the wind sector – to produce turbines and develop wind parks. It means that after we gain the technology and start the production of equipment, we will build wind parks in Russia, CIS, Eastern Europe, and any other countries where it will be economically feasible.

9 Russian regions have already expressed their interest in construction of wind parks together with AEM. We are negotiating with Rosenergoatom about construction of wind parks next to seven existing nuclear power plants.

Strategically, AEM is considering its presence on foreign wind development markets, especially on foreground for Rosatom markets in Eastern Europe, Middle East and Asia. In order to enter the international market fast, Atomenergomash plans to acquire an international company with references in the wind energy sector.

At the same time, I believe that solar and biomass generations are also very promising. We work in these spheres as well, but so far it is too early to talk of any business projects. AEM has been

studying the small hydro energy market as well. For instance, one our facility – Ganz – is competent to produce turbines for small hydro power plants.

— **In 2009 AEM managed to increase its profit by 33% and its production volume by 50%, notwithstanding the crisis. What caused this?**

— The main growth in 2009 was connected to orders in the nuclear industry. But in second half of 2010 the number of orders in the heating energy and gas and oil chemical industry increased. In future we expect that most orders will be coming from the non-nuclear sector. Now 60% of all orders of AEM come from the nuclear sphere. In 2011 orders from these two sectors are expected to come in equal shares. And later I hope that the share of non-nuclear orders will be over 50%.

— **What was last year like for AEM?**

— It was a strategically important year. The basic corporate structure of the holding was formed, two key facilities were acquired – Petrozavodskmash, the machine production factory, and Energomashspetsstal, the Ukrainian producer of special steel billets. New strategic projects were started – entering the wind energy market, local production in India, establishment of a device construction sub-holding.

Large-scale investment programs for development of production and technological base of AEM are in the process of implementation. Technological partnership with foreign leaders like Worley Parsons, Alstom, Toshiba, Doosan is developing rapidly.

— **In December 2010 AEM became the owner of Energomashspetsstal, the Ukrainian special steel producer. How will this acquirement effect on the AEM's business activities?**

— Thanks to this acquirement we plan to become more independent and sustainable. The market of special steel is very narrow, and this is a supplier's market. The acquirement of Energomashspetsstal will help to demonopolize the market. The Ukrainian enterprise has a good background as a supplier. They have seriously modernized the facility for over 250 mln euro. Today the company is an attested supplier for the majority of the largest energy machinery producers like Siemens, Alstom, GE, Toshiba, BHEL (India), Dongfang Electric (China), and others. In post-Soviet area this is the most technologically developed and advanced enterprise in the special steel sector. By acquiring Energomashspetsstal we do not only provide our facilities with raw materials, we also consider metallurgy as a separate business sector.

Besides, Energomashspetsstal made our technological chain longer. Now our business portfolio includes metallurgy that makes up to 30% of costs of some products. Therefore, now we are protected from price fluctuations on the metallurgic market.

We plan to expand the range of products of Energomashspetsstal. As a result, the capacity of the enterprise will increase. Indeed, we will develop the enterprise within the resources of AEM.

— **Does AEM plan to acquire majority shares or just shares of energy machinery producers in Russia and abroad?**

— The basic structure of the holding has been formed in AEM already. Its further expansion will be determined by strategic priorities of the company. Mostly, we will buy high-tech companies which products we lack in our supply chain.

To read the interview in full in Russian please proceed to the link:  
<http://www.rbcdaily.ru/2011/03/16/industry/562949979868784>