

### 4.3. THE COMPANY'S POSITION IN THE GLOBAL AND RUSSIAN POWER ENGINEERING INDUSTRY

According to the results of 2013, OJSC Atomenergomash shared 20% of the domestic power engineering market, having once again taken the leading position in terms of revenue in this market.

It should be noted that product lines of each player as a whole are unique, which is a proof of limited competition in the market.

#### NUCLEAR POWER

Today Rosatom State Corporation ranks as number one in the world in terms of the number of NPPs in the construction stage or in preparation for construction.

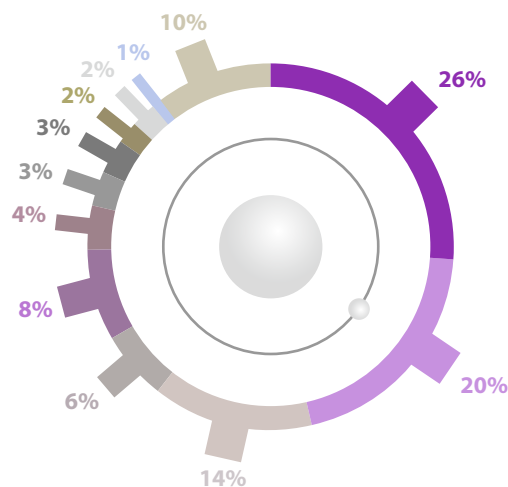
The companies of the OJSC Atomenergomash corporate profile are designers and manufacturers of the equipment installed at all nuclear power plants built in the countries of the former Soviet Union and at several foreign nuclear power plants (in Bulgaria, Hungary, the Czech Republic, Slovakia, the former East Germany and Finland with VVER-440 and VVER-1000 reactors).

In 2013, key equipment for Leningrad NPP-2, Novovoronezh NPP-2, Rostov NPP and Beloyarsk NPP was produced. In addition, supplies and services were provided to Balakovo NPP, Beloyarsk NPP, Bilibino NPP, Kalinin NPP, Kola NPP, Kursk NPP, Smolensk NPP, Zaporizhia NPP (Ukraine), Rivne NPP (Ukraine), Mochovce NPP (Czech Republic), Kudankulam NPP (India), Kozloduy NPP (Bulgaria), Paks NPP (Hungary), Jaslovské Bohunice NPP (Slovakia), Temelin NPP (Czech Republic) and Tianwan NPP (China).

#### SHARE IN THE RUSSIAN POWER ENGINEERING INDUSTRY

AEM

1.2.1



- Power Machines, including EMAlliance
- Atomenergomash
- OMZ
- Elektrozavod
- NPO Saturn
- Tyazhmash
- Belenergomash
- PMZ
- UTZ
- Elsib
- Sibenergomash
- Other

Source: reports of companies, media, AEM assessment, RBK.

The Division's enterprises are continuously performing work to modernize the equipment of existing NPPs in order to improve reliability, economic performance and increase service life.

## THERMAL POWER

The main purpose of the business area is consolidation and development of the abilities of the Division for planned revenue growth of the segment. A significant portion of the revenue in this area is generated by production of boiler equipment at the production premises of ZIO-Podolsk.

The main challenge in development of the segment in 2013 became the severe price competition that increases due to the completion of power units construction within the framework of the CSC (Capacity Supply Contracts) Program.

In the reporting period, the Division's companies have fulfilled their obligations to supply equipment for Nizhnevartovsk TPP, Nazarovo TPP, Yuzhnouralsk TPP-2. In addition, the Czech company Chladicí věže Praha has signed two contracts for the development of project documentation and supply of technological equipment for OJSC Fortum (TGK-10). The contracts were concluded in relation to the construction of three 247.5 MW CCGTUs at Chelyabinsk TPP.

An important focus of business for enterprises of OJSC Atomenergomash (primarily OJSC ZiO-Podolsk) is participation in projects to modernize TPPs in Russia and CIS countries. In particular, two tenders to modernize Starobeshevo TPP (Ukraine) and Reftinskaya TPP (Sverdlovsk region) were won. The Company's strategic goal is to gain a 40–50% share of the target markets for modernization projects.

OJSC Atomenergomash plans to actively develop its experience in the very latest technology for construction of 600–900 MW coal-fired power units at thermal power stations for ultra-supercritical steam parameters, by increasing its market share to 20%.

## GAS AND PETROCHEMICAL INDUSTRY

To achieve the goal of increasing the portion of revenue from non-nuclear areas in the medium-term, a task to multiply the share of the Division's enterprises in the gas and petrochemical equipment market was set.

The main challenge for OJSC Atomenergomash in this segment is the high competition in the market due to the large number of players with established brands that results in high market entry barriers. In order to fulfill the goals and objectives, OJSC Atomenergomash plans to actively work with potential customers.

In 2013, the Volgodonsk branch of CJSC AEM Technologies, Atom mash, shipped hydrotreaters to Orsk Refinery and Ryazan Oil Refinery (TNK-BP) and two reactors for CJSC RNPk (OJSC Rosneft OC). A contract for reconstruction of Kogalymneftegaz Refinery (OJSC Lukoil) was concluded. In addition, CJSC AEM Technologies was accredited in OJSC Rosneft OC, OJSC Lukoil, and OJSC AFK Sistema.

## SPECIAL STEELS MARKET

This business segment has been formed at OJSC Energomashpetsstal.

The main challenge in 2013 was the increased competition among producers of special steels due to the reduction in the economic growth rate and industrial production in CIS and Eurozone countries. In order to improve competitiveness, OJSC Energomashpetsstal is actively implementing programs to optimize its production technology.

In 2013, OJSC Energomashpetsstal implemented large-scale projects for production of a support roll for plate mill "5000" from a unique ingot weighing 415 tons, a hydraulic roll for Dnestrovskaya HPP from an ingot weighing 355 tons, and castings for shells with connections for RITM 200 project weighing 290 tons. Also, in 2013, OJSC Energomashpetsstal approved itself as a supplier for Rolls-Royce, ALSTOM, and Arce-lorMittal.

Among the objectives in the Special steels segment for 2014, the following should be noted:

- to complete the certification conducted by ALSTOM and BHEL;
- to ship castings for Belarusian NPP and RITM-200;
- to complete the qualification for the VVER-TOI project (shipping core shell );
- to launch production of castings for Akkuyu NPP;
- to manufacture equipment for production of forged and die stamped steam generator heads of reactor plants.

#### WIND ENERGY

In the development of wind energy, the priority goal of OJSC Atomenergomash is the full cycle model that enables control over the entire value chain, from designing development projects and production of wind power plant (WPP) components to operation of wind power stations (WPS) and sales of electricity.

One of the important focuses is designing and selling ready for use WPS development projects with a contract for supply of components (tower, hub, frame, brake plates). For implementation of development projects, a special unit, CJSC VetroOGK, was founded within the Division's structure.

In 2013, agreements for cooperation on prospective construction of WPSs with the municipal administrations of Stavropol and Astrakhan regions were signed. In addition, in June 2013, wind monitoring was started at the construction site of the proposed wind power station in the Republic of Adygea.

In June 2014, CJSC VetroOGK plans to participate in the tender for selection of CSC investment projects covering renewable energy sources with a number of projects to a total capacity of 345 MW. For implementation of the development projects, it is planned to use other subsidiaries of OJSC Atomenergomash.

At its production facilities, OJSC Atomenergomash is ready to organize production of a number of key components for WPPs to orders from original manufacturers, not only for its own projects, but for other market players as well. Currently, OJSC Atomenergomash is negotiating with industry leaders about an order for components production, to achieve the required level of localization in the Russian Federation.

