



LEAD STORY

## Rosatom Suppliers Make Russia Nuclear Market Leader

**The 9th nuclear industry suppliers' forum Atomex 2017 came to an end in Moscow. It showed that the number of Rosatom's suppliers was growing to make the Russian nuclear corporation an industry leader. According to Rosatom's CEO Alexei Likhachev, it would not have been possible without support of industry suppliers totaling nearly 15,000 companies.**

The first day of the Forum started with the plenary session entitled 'Procurement Procedures in Global Hi-Tech Companies: Challenges and Trends'. Speaking at the session, Rosatom's CEO Alexei Likhachev

noted that the Russian nuclear corporation was a notable player on the international nuclear construction market. "This has been achieved, first and foremost, through close cooperation with our suppliers. They are almost 15,000 companies and they all are our teammates and direct contributors to Rosatom's success," Likhachev said.

"Today, we have construction contracts for 34 reactors in 12 countries. In addition to that, we are in the process of negotiating construction of approximately the same number of reactors in a comparable number of countries, to say nothing of less powerful facilities, such as nuclear science and technology centers and low-capacity research reactors. Nearly 40 countries are demonstrating strong interest in constructing nuclear facilities with the help of Rosatom," Likhachev added. Rosatom's portfolio of international contracts has approached a total of 150 billion US dollars.



## More procurement contracts

Speakers at the panel session entitled 'Rosatom's Development Trajectory' mentioned that the amount of procurement orders for Rosatom's construction sites abroad exceeded the volume of procurement contracts on the domestic market. In 2012, the value of the contracts put out to tender was 313 billion rubles. Three years later, it reached 622.4 billion rubles. According to Roman Zimonas, Director of Procurement Department at Rosatom, the company plans to tender out over 40,000 contracts for products and services for a total of 1.1 trillion rubles by the end of the current year and 2018. This amount will include RUB 604.1bn in international contracts and RUB 504.4bn in national procurements. Out of 1.108 trillion rubles, RUB 741.7bn will be spent on materials, machinery and equipment, with RUB 202.9bn more to be spent on construction and installation. For eight years since the implementation of Rosatom's procurement system, the company has saved over 190 billion rubles by tendering out procurement contracts. For nine months of 2017 alone, bidding procedures helped save 17 billion rubles.

"Rosatom is facing global challenges that require the company to improve its procurement procedures and know industry trends on the national and international markets. This is what we are to discuss here at the Forum," Zimonas said.

Speaking to the suppliers, Kirill Komarov, Rosatom's First Deputy CEO for International Business, said that their partners learned to follow international standards and acquired necessary expertise by taking part in overseas projects of the Russian nuclear corporation. "But you should understand that the selection process is rigorous. We always have very tight project schedules, and responsibility we bear is great, so we hold you responsible as well." Kirill Komarov added, "We will make our supplier requirements even more stringent and plan to introduce the practice of pre-contract audits and require suppliers to provide time and quality guarantees. This will be a very demanding regulatory framework."

He also stressed the fact that Rosatom had commissioned 10 Russian-designed reactor units in Russia and other countries for ten previous years. "No other company in the world can boast the same scale of operations. With such broad expertise in the industry, we are now getting down to re-engineering our procurement and construction management processes. We plan to subcontract larger orders, that is, tender out larger contracts so as to acquire top-class vendors that will be able to deal with the scope of work we want them to do. In return, we want them to provide time and quality guarantees."

On the second day of the Forum, Russian and foreign suppliers took part in roundtable discussions and workshops. The central event of the day was a roundtable meeting entitled 'International Nuclear Construction Projects: Cooperation Opportunities'. Its purpose was to present Rosatom's projects in Bangladesh, Iran and India. Sergei Streltsov, ASE Director for Quality Assurance, told the audience about specific requirements for machinery and

equipment, as well as services for nuclear plant construction projects in other countries. He also spoke in detail about requirements set by countries with the developed nuclear industry, such as Hungary or Finland. Dmitri Rudakov, ASE's Chief Expert and Multi-D Market Project Manager, reported on opportunities offered by the digital platform developed by Rosatom's engineering division. Multi-D Market is an open platform to select and procure complex equipment and build links between customers and suppliers in Russia and abroad.

## EXPERTS SPEAKING

**Anton Getta, Deputy of the State Duma, Coordinator of the Fair Procurement Project:**

*"Atomex Forum is a perfect example of professional talks in the atmosphere of confidence. Straight talks organized for the ninth time between suppliers and customers are what they need to work out*

*joint solutions on how to amend procurement regulations and federal laws. At the same time, the Forum is a perfect venue to voice discontent over the work of each other. What has always made Rosatom different is dialog between the parties, rather than defense against attacks of others, to jointly develop professional solutions."*

**Rachik Petrosyan, Deputy Director of the Federal Antimonopoly Service:**

*"This Forum has made it clear why so few complaints are filed with the Federal Antimonopoly Service regarding procurements in such a complex, but very transparent nuclear industry. In fact, there is nowhere they might come from because so many professionals discuss all the existing problems and possible solutions before a problem turns into a complaint. The nuclear industry has proved once again that it is at the cutting edge of both technology and management, particularly procurement practices."*

## COOPERATION

# Russia, Saudi Arabia to Develop Roadmap on Peaceful Uses of Nuclear Power

**Russia and Saudi Arabia plan to develop and adopt a roadmap to deliver their joint nuclear power initiatives.**

This follows from the minutes of the Russian-Saudi Intergovernmental Commission's meeting held in Riyadh. According to the minutes, the plans are to involve Rosatom in the negotiations over the construction of a large-capacity



nuclear power plant in Saudi Arabia. Other plans are to hold the second meeting of the Nuclear Power Coordination Committee, organize a visit of Saudi experts to Russian nuclear facilities and stage a seminar in Riyadh on Russian nuclear technology and solutions, including small and large capacity reactors.



In June 2015, Russia and Saudi Arabia signed a civil nuclear cooperation agreement in Saint Petersburg. This document was the first in the history of the Saudi-Russian relations to create a legal framework for the two countries to cooperate across all sectors of the civil nuclear industry. The first meeting of the Nuclear Power Coordination Committee formed pursuant to the agreement was held in March 2016 in Riyadh. In early October, Rosatom and King Abdullah City for Atomic and Renewable Energy signed a cooperation program for peaceful uses of nuclear energy. The program provides for the cooperation between Russia and Saudi Arabia in several key areas, such as low and medium capacity reactors that can be used for both power generation and water desalination, nuclear infrastructure development for the Saudi national nuclear program, and human resources. Russia and Saudi Arabia will also consider the construction of a

Nuclear Science and Technology Center based on a Russian-designed research reactor in the Kingdom of Saudi Arabia.

According to Rosatom's Annual Report 2016, construction of two nuclear reactors in Saudi Arabia is on the list of projects that can be started before 2030.

Earlier Saudi Arabia announced its plans, unprecedented for the region, to build 16 nuclear power reactors in the country to satisfy its power demand. In September, Rosatom's CEO Alexei Likhachev told reporters on the margins of the IAEA General Conference in Vienna that the Russian nuclear corporation and its Saudi partners were negotiating a 'broad range of prospects, from a large-capacity nuclear power plant with desalination facilities to low and medium capacity power sources, including floating nuclear plants'.

## EDUCATION



### **Nuclear Science for Thailand**

**Rosatom and Thailand university will cooperate in the field of nuclear science. A relevant memorandum was signed by the parties.**

Rosatom Southeast Asia and Chulalongkorn University (Thailand) signed a memorandum of understanding to create a framework and conditions for a dialog between Russia and Thailand in the field of nuclear science and education.

The document was signed by Egor Simonov, Director of Rosatom Southeast Asia, and Prof. Dr. Bundhit Eua-Arporn, President of Chulalongkorn University. "The parties agreed to promote partnerships between Chulalongkorn University and Russian higher education institutions, including Rosatom's R&D and educational centers," says a press release of Rosatom International Network. As part of the memorandum, Chulalongkorn University hosted a public lecture delivered by Ekaterina Petrova from the National Nuclear Research University (MEPhI), Rosatom's core educational institution. The lecture dealt with the role of innovative nuclear solutions in sustainable development.

Staff training is part of Rosatom's integrated offering for international partners. In September 2014, Rosatom and the Thailand Institute of Nuclear

Technology (TINT) signed a memorandum of understanding.

Last September, Rosatom and Kinetics Corporation Ltd (Thailand) signed a contract to construct a cyclotron facility that will be used to fabricate radiopharmaceuticals for TINT. The facility will be operated by TINT to produce isotopes for medical purposes. According to the contract, Rosatom's subsidiary Rusatom Healthcare and Thailand's Kinetics Corporation Ltd will jointly construct and commission a center for the production of radiopharmaceuticals. It will be located at the Ongkharak Nuclear Research Center in Nakhon Nayok Province. With an area



of over 5,400 sq m, the new facility will house a cyclotron and several laboratories for the production of radioisotopes for medicine and other purposes. The center will also serve as a platform for research and development in radiation technology and innovation.

## IN BRIEF

### **Rosatom shared its best practices with Ghana**

Rosatom took part in the Ghana Industrial Summit and Exhibition (GISE 2017) conference, which embraced international experts and high-level governmental officials. "Nuclear energy development is an essential aspect of the solution for Ghana to deal with its current energy shortfall which represents a considerable impediment for the country to reach its ambitious goals laid out in its National Development Plan (NDP). Nuclear energy and technologies are able to give an impetus to Ghanaian industrial and infrastructure development," mentioned Viktor Polikarpov, Rosatom Vice-President for Sub-Saharan Africa. "Rosatom welcomes the country's plans to develop its nuclear program and is open to assist Ghana in its nuclear endeavors," continued Polikarpov. A delegation of Rosatom representatives from various fields of expertise demonstrated the company's solutions for nuclear power development for emerging

countries. The presenters focused on various topics relevant to Ghana, including: localization, skills development, technology transfer as well stakeholder engagement among others. All Rosatom innovations and technological developments were on display at a custom stand open to all visitors. All participants were able to become familiar with nuclear innovations through the company's innovative virtual tour of one of Russia's Nuclear Power Plants (NPP).

"In order for Ghana to achieve a balanced energy mix, the country should consider all available sustainable sources of energy. Solar, wind, hydro and nuclear power complement and reinforce one another to form a "green square", which will essentially become the base for the world's future carbon-free energy mix. A sustainable energy mix with the inclusion of nuclear power will contribute immensely to the national economy and will make local business more competitive and attractive on the global market," concluded Polikarpov.

## **Reactor Vessel Delivered to Leningrad II Site**

The new reactor vessel for Leningrad II has arrived at the construction site and will be installed in the nuclear island by the end of this year. "To deliver this extremely important cargo, we developed a special plan that included two railway links – from the manufacturing plant and through Saint Petersburg to the Neva. Then the vessel was carried by ship under the beautiful bridges of Saint Petersburg into the Gulf of Finland to go 40 kilometers by sea to Sosnovy Bor. Despite adverse weather conditions, this oversized cargo was safely delivered to the site within ten days as provided for in the project schedule," said Alexander Letyaev, Head of Logistics at Izhorskiye Zavody. Meanwhile the vessel has been transported by special trucks right to the site of Leningrad II. It will be installed in its permanent position in the VVER-1200 reactor pit of Unit 2 by the year end. Leningrad II is located in the town of Sosnovy Bor, 40 km west of Saint Petersburg on the shore of the Gulf of Finland.

## **RASU to Add More Contracts to Portfolio**

Rusatom Automated Control Systems (RASU, a Rosatom Group company) plans to double its portfolio of contracts for process control systems to reach 120 billion rubles by the end of 2018. This

was announced by Andrei Butko, CEO of RASU, at the international suppliers' forum Atomex 2017. "At present, our contract portfolio is little more than 60 billion rubles. We plan to double it in 2018," he said. Butko noted that RASU targets all nuclear plant construction projects both in Russia and abroad as potential buyers of its process control systems. RASU has signed contracts to supply process control systems for the Rooppur Nuclear Power Plant in Bangladesh and Kudankulam II in India, and plans to sign another contract with the nuclear plant in Kursk (Russia). In the long term, the company plans to sign contracts with Bushehr in Iran, Akkuyu in Turkey and Dabaa in Egypt. According to Andrei Butko, RASU is also set to win contracts to manufacture process control systems for Paks NPP (Hungary) and Hanhikivi NPP (Finland). He says that the price of control systems makes about 10% of the nuclear plant construction project. Entering non-nuclear markets is seen by RASU as its important task. Contracts for process control systems for non-nuclear facilities are expected to total 8.5 billion rubles in 2018 versus RUB 4bn in 2017.