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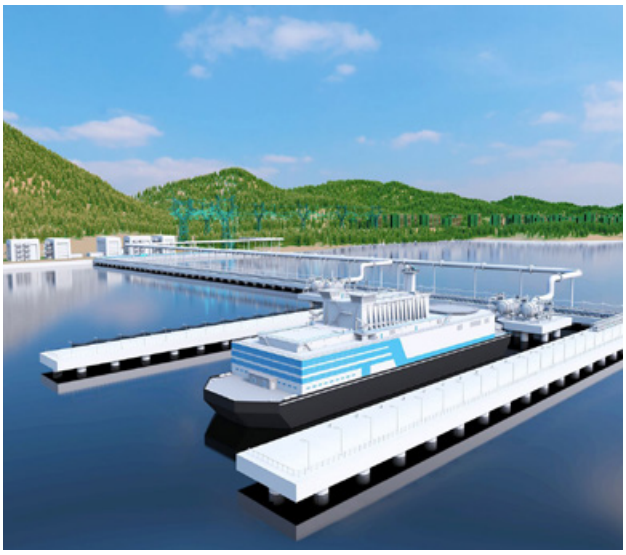
Small Power in Pipeline

Construction of hulls for floating power units, development of a detailed engineering design for a power plant with SHELF-M microreactor, and presentation of Rosatom's small nuclear power plant in Ghana — all these speak to the fact that the Russian nuclear corporation keeps working on its small modular reactor projects and moving them through the pipeline both in Russia and in other countries.

Floating power units

A keel laying ceremony was held at a shipyard in China as the workers proceeded to the construction of a hull for the first floating power unit (FPU). It is the first one for a number of reasons. To start with, it will be the world's first FPU with a RITM-200S nuclear reactor. Besides, it is the first out of four FPUs that will supply electric power to Baimsky GOK, a large mining and processing site at the gold and copper deposit Peschanka in the Chukotka Peninsula (Northeast Russia). The Chinese shipyard will build two hulls. The decision as to where the remaining two hulls will



be produced will be made in the fourth quarter of 2022.

Weighing 9,549 tons, each hull is 140 m long and 30 m wide. With the equipment installed, its weight will increase to 19,088 tons. The first hull is expected to be delivered to Russia in 2023. The equipment to be installed in it is being manufactured at the production sites of Rosatom's power engineering division AtomEnergoMash. The power capacity of a two-reactor FPU will be 106 MWe.

"This project will kick-start a family of FPUs varying in capacity and application, including versions for arctic and tropical climates. These are the products AtomEnergoMash can offer its customers and that certainly hold the potential for large industrial sites and exports," says AtomEnergoMash CEO Andrei Nikipelov.

It should be noted that Baimsky GOK will be the second major site powered with electricity from floating power units. The world's first floating nuclear power plant was brought online in December 2019 and has been supplying heat and power to the Chukotka city of Pevek since then.

SMRs in Yakutia

Dollezhal Research and Development Institute of Power Engineering (NIKIET, part of Rosatom) has won a contract to develop a detailed technical design of the reactor systems and equipment for the first small nuclear power plant with SHELF-M reactor. The design will be finalized by the end of 2024.

According to Denis Kulikov, Chief Designer of Small Modular Reactors at NIKIET, SHELF-M is an upgraded and standardized version of the SHELF water-cooled integral reactor ('M' stands for 'modernized' in Russian). Equipment for the power plant will be supplied in modules.

Each SHELF-M reactor has a power capacity of up to 10 MWe. Capacity of the power plant can be increased by adding more reactor modules. All reactor systems are placed inside a rugged housing that serves as an additional protection barrier against radiation. Another protective structure is an enclosure into which the housing is installed.

This June, Rosatom and the Russian region of Sakha (Yakutia) signed an agreement to develop and approve a roadmap for the construction of a small nuclear power plant with SHELF-M reactor. The power plant is expected to be put in operation in 2030.

The SHELF-M-based nuclear power plant is the second small-scale nuclear generation project in Yakutia. At present, Rosatom is making preparations for the construction of a nuclear power plant with RITM-200 reactor in the same region. The plant will supply power to a gold mining facility at the Kyuchus gold deposit. It is expected that the RITM-200-based power plant will be brought online in 2028.

ROSATOM NEWS

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Rosatom's small nuclear plants in Ghana

The Russian nuclear corporation presents its small-scale nuclear generation solutions in different countries. In late August, Rosatom organized a seminar on small modular reactors for the public authorities and expert community of Ghana. Rosatom told the audience about the history and application of small modular reactors, and about the SMR projects launched or in progress. Much was said about the advantages of small nuclear power plants and their specifics in terms of safety, design and cost efficiency. It was noted that the plant design combined active and passive safety systems and employed only proven solutions and technology. Besides, small nuclear power plants are less material-intensive than high-capacity plants and can be pre-assembled at the manufacturing facility rather than on the construction site, which saves time and money. Bringing small nuclear power plants online requires less effort and investment in the grid infrastructure. Small-scale generation solutions are well suited for isolated grids and remote territories. And, unlike fossil fuel power plants, nuclear-powered generation stations are almost independent of fuel price fluctuations.

Experts from Ghana shared their opinions on the prospects of nuclear generation in the country and objectives to be pursued. According to Robert B. M. Sogbadji, Deputy Director of the Nuclear and Alternative Energy Department at the Ministry of Energy, Ghana is developing a national clean energy transition plan in which nuclear power plants play a decisive role in generating baseload power. It was announced at the seminar that the parties would set up a task team to coordinate activities and exchange information.

I'll be back-end

Delegates from the CIS countries discussed nuclear legacy management, handling of radioactive waste and spent nuclear fuel, and government regulation in this area at a conference organized by Rosatom in August. Russian expertise attracted the greatest interest as the country has followed a comprehensive approach to nuclear waste management since 2011. Rosatom is willing to share its knowledge and best practices with its counterparts from Kyrgyzstan, Armenia, Belarus, Kazakhstan, Tajikistan, Uzbekistan and other countries.

Russian expertise

"We can handle radioactive waste and know how to safely isolate it. We are ready to share our knowledge and expertise with the countries to whom our solutions might prove essential," Marina Belyaeva, Director for International Cooperation at Rosatom, said at the conference opening.

Russia pursues a comprehensive approach to the infrastructure for radioactive waste management and final isolation. First, a legal framework was established as the government passed a law on radioactive waste management in 2011 and authorized one of Rosatom's divisions to act as a national operator for radioactive waste management (NORWM) in 2012. New regulations were enacted to establish classification criteria and disposal procedures for different radioactive waste categories.

Today, nuclear waste has owners. As Alexander Baryshev, Deputy Chief Operating Officer at NORWM, said at the conference, the waste existing before 2011 is owned by the government while the waste produced afterwards is owned by its producers. This division determines financial obligations. The government pays for legacy waste, and producers pay for the new waste they generate. All the owners make quarterly payments to a dedicated public fund.

The money collected is allocated to build and maintain necessary infrastructure (radioactive waste repositories). In 2016, the first section of a near-surface repository

near Novouralsk was put in operation, followed by the second section this spring. Similar disposal sites are constructed in the Chelyabinsk and Tomsk regions to be commissioned by 2026.

Alternative options of nuclear waste isolation are also explored. In the late 2020s, site surveys will be carried out to establish a long-term safety case for a deep geological repository planned to be built in the Nizhnekansky massif (Siberia). The final decision to this effect will be made in the mid-2030s. Until then, class 1 and class 2 (medium and high level) radioactive waste will continue to be stored at the Mayak site in the Chelyabinsk region.

Other countries

Delegates from the CIS countries also shared their experience and plans for the future. For instance, Kyrgyzstan conducts remediation activities at its closed uranium mining sites. The scope of work includes cleaning of debris-flow and water drainage channels and ditches, restoration of the protective layer on tailing pond dams, reinforcement of protective structures, and so on. In Tajikistan, remediation of legacy uranium mines is also in progress. Kazakhstan converts its research reactors from high to low-enriched nuclear fuel and decommissions some of the nuclear facilities operated by MAEK-Kazatomprom, the most important of which is the BN-350 fast neutron reactor. All in all, there are more than 40 legacy sites in the CIS countries that need remediation.

TVEL, Rosatom fuel division, proposes to set up ranking criteria to prioritize nuclear legacy sites. The criteria will be based on technical data, broken down by categories

(environmental impact, social impact, human safety, and radioactivity) and assigned scores.

"It is one thing if there have been no accidents on the site, reservoirs are intact, and there is some service life left so that the equipment remains operative. It is another thing, though, if there have been spills or contaminations outside of the control area. Community factors may also come into play. For instance, the site can be relatively safe but local residents have a clearly negative attitude to it. Costs are no less important: if two different sites pose the same level of threat but decommissioning one of them is more expensive, it might be reasonable to start with the less costly one," explains Eduard Nikitin, Director of Nuclear Decommissioning Programs at TVEL. It is not an easy task to squeeze the variety of factors into a rigid set of criteria but it will not be possible otherwise to assess which site needs remediation first, he added.

Harmonization of law

Approximation and harmonization of national legislations in the CIS is another essential task. For now, national regulations use different classification criteria for radioactive waste. **"Radionuclides are, however, the same anywhere in the world, so it would be logical to standardize classification rules,"** Eduard Nikitin noted.

Some agreements to this effect have already been reached.

As a major CIS company engaged in nuclear legacy management, TVEL proposed that the CIS countries draft a model law on radioactive waste management and nuclear decommissioning to harmonize their national legislations.

The law is planned to be based on international conventions, IAEA guidelines, and agreements signed by the CIS countries. Russian laws and regulations will also be taken into account. Thanks to the expertise gained, they are best suited to regulate nuclear decommissioning and remediation activities.

IAEA

TVEL shares its back-end experience not only with the CIS countries, but also with the international community. In a series of technical meetings organized by the IAEA in August, TVEL experts presented their reports on staff training and decommissioning of research reactors, including fast neutron reactors. These are research reactors MR and RFT at Kurchatov Institute and BR-10 at the Institute of Physics and Power Engineering (part of Rosatom). NL

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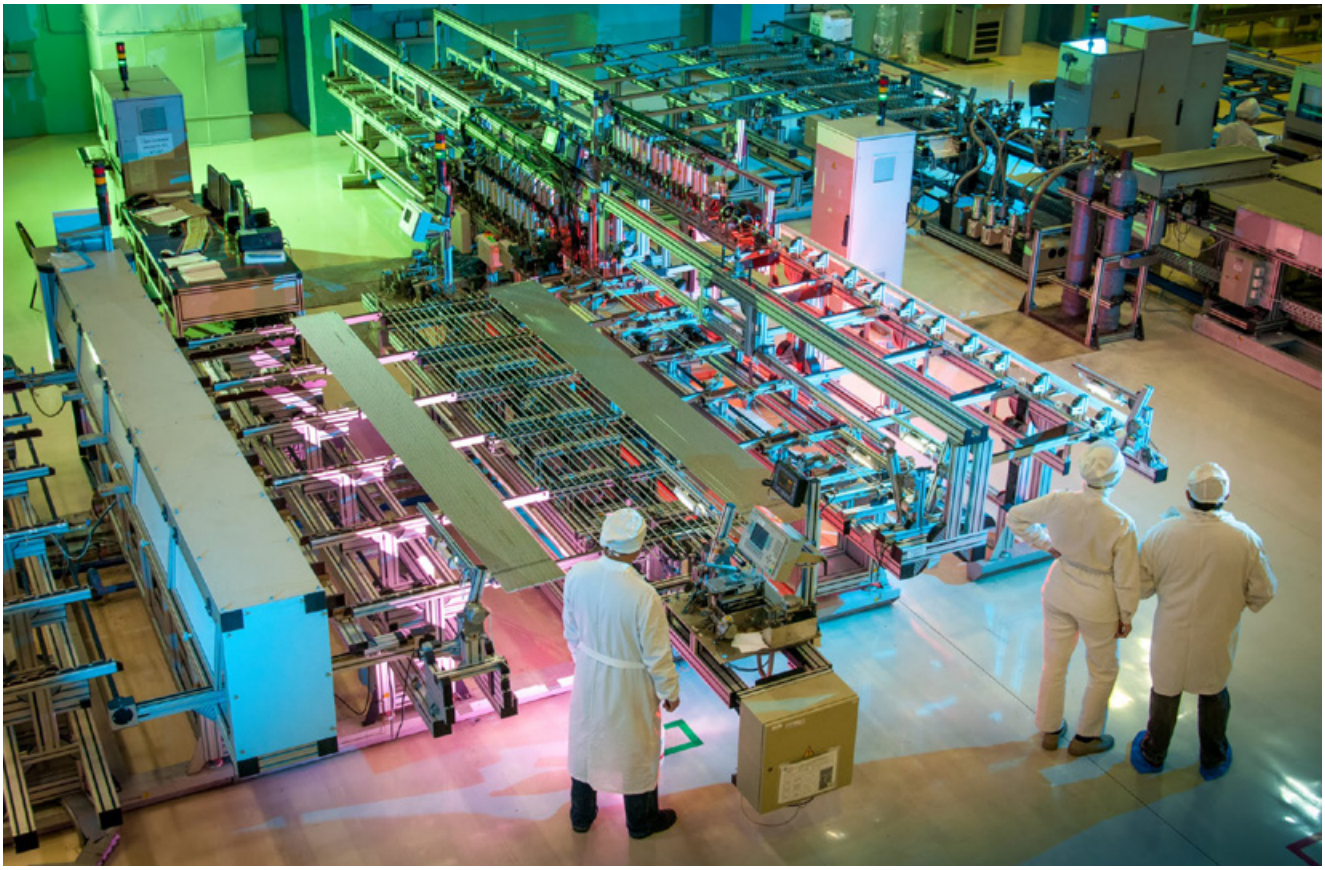

Many Faces of TVEL

Playing a critical role within Rosatom, TVEL Fuel Company is engaged primarily in uranium enrichment and fabrication of nuclear fuel and its components. Apart from that, the company develops new businesses in specialty chemicals, metals, energy storage, additive technology, and nuclear decommissioning.

Fuel business

TVEL's products are essential not only for Rosatom — the company supplies fuel for 75 nuclear reactors in 15 countries. Here are some recent examples. In August, a contract was signed to supply fresh nuclear fuel to the Armenian NPP (it accounted for a quarter of the electricity generated in Armenia in 2021). Another contract was signed in April to supply nuclear fuel components for a research reactor in Egypt. In June, Rosatom began deliveries of a new modification of nuclear fuel assemblies for the VVER-1000 reactors operating at India's Kudankulam NPP.

TVEL accounts for over a third of enriched uranium and 17% of nuclear fuel fabricated globally. One of its competitive strengths is strong vertical integration of production processes, from uranium conversion to fabrication of fuel assemblies.

The company boasts extensive R&D capabilities focusing, among many other things, on the development of new types and modifications of nuclear fuel. Researchers are working on new designs, increasing uranium density of fuel pellets, incorporating anti-debris fil-

ters in fuel assemblies, and so on. The ultimate goal of these modifications is to make nuclear power plants more cost-efficient by raising their power capacity, extending the fuel cycle and reducing procurement costs. Later this year, TVEL plans to finalize the design of a new fuel modification and obtain a license for improved fuel cycle solutions for Europe-based VVER-440 reactors. In addition, TVEL researchers and engineers carry out studies to justify the load following operation of nuclear power plants with VVER-1200 reactors and have already proved the in-principle possibility of these reactors running in a load-following mode.

Development of an accident tolerant fuel is another focus of research at TVEL. In May, the company launched a fourth series of tests on pilot fuel rods with four different combinations of claddings and fuel compositions. Simultaneously, researchers conduct in-pile tests on the rods containing uranium silicide, a denser modification of nuclear fuel. ATF assemblies are still in the core of a commercially operated VVER-1000 power reactor at the Rostov NPP (Russia).

TVEL continues to put much effort into 'closing' the nuclear fuel cycle. For several years now, the company has been producing MOX (mixed oxide) fuel for the BN-800 fast neutron reactor. Since early September, it has been running entirely on MOX fuel. In addition, TVEL develops REMIX, another kind of mixed oxide fuel for VVER reactors. Last December, six assemblies containing REMIX fuel were loaded into the reactor core of Balakovo Unit 1 for irradiation tests.

One of the major challenges the company faces is to develop the first ever MUPN fuel for BREST-OD-300, a lead-cooled fast neutron reactor. What makes MUPN fuel different is the use of nitrides, not oxides of uranium (MUPN stands for mixed uranium-plutonium nitrides).

In late August, comprehensive trials started at the fuel fabrication/refabrication (FFR) unit in Seversk. Fuel tests have been passed by now. Both the FFR unit and BREST-OD-300 reactor are core facilities of a dedicated pilot demonstration center designed to show in practice the capabilities and benefits of lead-cooled fast neutron reactors for generating electricity and closing the nuclear fuel cycle.

New businesses

New businesses of Rosatom's TVEL Fuel Company are based on its existing competencies. The 'next of kin' to its fuel business is specialty chemicals. TVEL's subsidiaries have gained extensive experience in the fabrication of stable isotopes for a variety of industrial applications. TVEL accounts for 40% of this isotope segment worldwide. Its chemical subsidiaries also produce high-purity metals, such as metallic lithium, and catalysts for Russian motor vehicles.

The company's facilities for the production of chemical power sources were merged to

set up RENERA, a new subsidiary acting as an integrator for the energy storage business. Intended initially for captive use, lithium-ion batteries produced by RENERA are now installed in special-purpose machinery (forklifts, mining machinery, airport equipment) and urban transport vehicles. In particular, RENERA batteries were used in Belarus-made trolleybuses carrying passengers in Saint Petersburg. In addition, RENERA manufactures and supplies direct current storage systems to grid operators. The company will soon begin construction of a factory in the Kaliningrad Region that will produce a wide range of products spanning cells to complete energy storage systems.

Additive technology is another new business of Rosatom's fuel company. TVEL produces materials for powder metallurgy and, for a few years now, has been engineering and producing 3D printers and developing 3D printing technology. In June, an additive machine passed acceptance tests as two robots printed a large workpiece by direct laser sintering.

Capitalizing on the competencies in refractory metals, TVEL develops its metallurgy business. Last year TVEL set up MetalTech to promote high-tech alloy solutions for transport applications (water- and aircraft engineering, power cables for high-speed roadways, etc.) and medicine (osteosynthesis and prosthetic dentistry). Early this year, the company developed a production technique for titanium forgings for water- and aircraft engineering and, before that, for the production of bars and discs used in medical products. TVEL metal experts are proud of having developed and supplied superconducting strands for the ITER project and niobium-tin superconductors, which have passed CERN qualifications.

TVEL also contributes to the environment by providing nuclear decommissioning and radioactive waste management services. Since 2019, TVEL has been acting as an integrator for the back-end services provided by Rosatom Group companies. As a major CIS company engaged in nuclear legacy management, TVEL and its subsidiaries run remediation projects at shutdown industrial sites in the former Soviet republics. In early September, a contract was signed to carry out remediation activities at a mothballed uranium mine Taboshar in Tajikistan. NL

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Return of Fatfleshed Kine

For over a year, spot and contract uranium prices have remained above USD 40 per pound, in a first since May 2013 and June 2016, respectively. According to reports, most of the mining companies have increased their revenue and net profit. Meanwhile, the changing attitude towards nuclear on the back of the energy crisis provides ground for a yet cautious optimism for demand growth as preparations are made to put mothballed and new mines in operation.

The past six years of low contract prices straddled post-Fukushima pushback from investors, mine closures, and asset sell-offs. Those years can be compared with the biblical leanfleshed kine from the Pharaoh's dream. The 'leanfleshed' years were followed by a coronavirus pandemic, supply disruptions, a vigorous growth of demand for metals during the post-pandemic recovery and, finally, a conflict in Ukraine, economic struggles and a global energy crisis. It was those unprecedented events that raised concerns over stability of supply and whet investors' appetite, having pushed the price of U3O8 upwards.

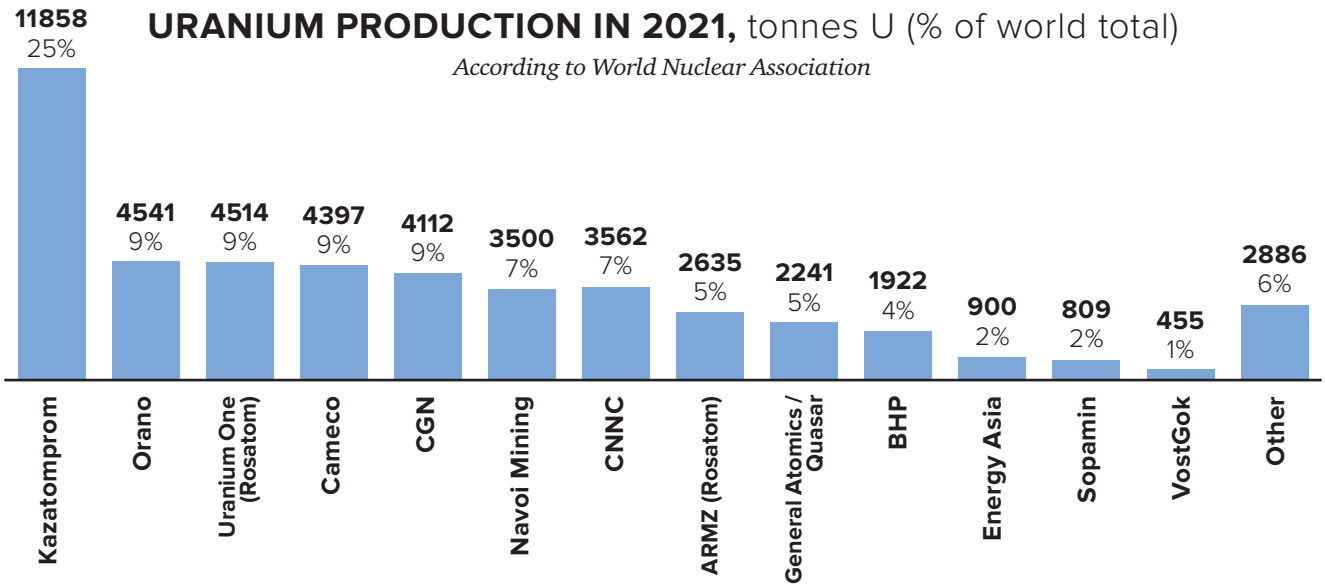
The first price hike happened in 2020 on the back of the pandemic. Then the price moved further up in the autumn of 2021 as the global economy began to recover and commodity prices rose. The third hike occurred this March when the average monthly spot price spiked

up to USD 58.2 per pound while the maximum weekly price in March stood at USD 63.75 per pound. Long-term prices followed. In June and July, the average contract price reached USD 51.5 per pound. Uranium mining companies made the best of the situation as their financial performance improved significantly.

Cameco

Canadian Cameco's uranium output soared more than 3.6 times in the first half of 2022, having increased from 1.3 to 4.7 million pounds. Its revenue from uranium sales, transportation and storage posted, however, a more moderate growth over the same period, up 67% from USD 461 mln to USD 770 mln. In return, gross losses of USD 89 mln turned into profit of USD 78 mln. Year to date, the Canadian company have signed supply contract for over 45 million pounds of uranium and **'have a significant and growing pipeline of contract discussions underway.'** According to the company, customers are becoming more interested in long-term contracts.

Cameco produces a little more than a third of uranium it sells. To some extent, this state of affairs is explained by the fact that the company has not been consolidating the results of Kazakhstan's Inkai uranium mine since 2018, so Inkai uranium is accounted for as purchased material. **"Based on an adjustment to the production purchase entitlement under the 2016 JV Inkai restructuring agreement, we are entitled to purchase 4.2 million pounds, or 50% of JV Inkai's updated planned 2022 production of 8.3 million pounds… Due to equity accounting, our share of production is shown as a purchase at a discount to the spot price and included in inventory at this value at the time of delivery,"** the company's report says. Generally, though, growing prices drive not only Cameco's earnings but expenses, too: **"For the remainder of 2022, the volume of purchase commitments sensitive to the spot price is higher than the volume of committed deliveries that are sensitive to the spot price. As a result, our cash flow is expected to move in the opposite direction from the uranium spot price as cash flow is expected to be more sensitive to price changes than adjusted net earnings."**



Kazatomprom

"The company demonstrated very strong financial performance in the first half of 2022, capturing a sharp market upturn over the last 12 months," says Yerzhan Mukanov, acting Chairman of the Management Board and Chief Operations Officer at Kazatomprom (Kazakhstan).

Its revenue for the first six months of 2022 amounted to KZT 493.7 bln, or over USD 941 mln (Kazakhstani tenge is hereinafter converted to US dollar at the average 1H 2022 exchange rate of KZT 524.46 per USD), more than two times as much as in the previous year. Operating profit was up 188% to reach KZT 167.4 bln (more than USD 319 mln). Net profit increased from KZT 184 bln to KZT 467 bln (from USD 350.8 mln to USD 890.4 mln), up 2.5 times. **"Those impressive results were triggered by the market improvement and higher sales resulting from a growing number of delivery orders for the first half of the current year,"** the company's statements say.

Production in the first half of 2022 was somewhat lower year-on-year, whether in Kazakhstan (little more than 10,000 t vs. 10,450 t in 1H 2021) or at Kazatomprom

(5,410 t vs. 5,860 t, respectively). By contrast, sales grew 46%, from nearly 5,180 t to 8,000 t at Kazatomprom and from almost 6,200 t to 9,000 t in Kazakhstan. Another telling fact is that Kazatomprom, like Cameco, also mentions customers' interest towards long-term contracts.

Orano

The mining division of the French company posted a 12.7% growth in revenue, from EUR 662 mln to EUR 746 mln. According to Orano, the growth was mostly driven by **'favorable effects of the increase in uranium prices'** and also by a positive conversion effect between the US dollar and the EUR. However, the growth could have been much higher if not for the backlog sales (shipments made but not yet paid for).

Operating income for the mining division remained almost flat, having increased from EUR 183 mln in the first half of 2021 to EUR 186 mln in 1H 2022. The figure experienced a mixed effect from a number of factors: **"Positive price/exchange rate effects over the half-year in connection with the increase in uranium and dollar prices, as well as the absence of COVID impact on activities in 2022 after the production shutdowns in Canada between January and the beginning May 2021 offset a less favorable production mix over the period and the increase in the cost of materials."** The company does not disclose its six-month production figures.

BHP Billiton

BHP Billiton (Australia) is, perhaps, the only major mining company that reported

a decline in financials in the uranium segment. **"For FY2022, BHP's green revenue from uranium was US$207 million, which is a decrease of 17 per cent on FY2021,"** the company wrote in its report for the 2022 financial year ending June 30. BHP Billiton does not make any comments on the reduction of revenue but it might be attributed to a decrease in the output. With 3,267 t of uranium produced in the 2021 financial year, the company's output in 2022 amounted to as little as 2,375 t, down 27% y-o-y. Sales also went down from 3,816 t of uranium in 2021 to 2,344 t in 2022. The main driver behind the decline of uranium output was a decrease in the production of copper, the key product of BHP Billiton's Olympic Dam mine due to a **'major smelter maintenance campaign (SCM21), which included COVID-19 impacts on the availability of workforce.'** The maintenance campaign was finished this January.

Rosatom

Rosatom's mining division supplies yellow cake to its nuclear fuel division for subsequent processing, so those supplies affect the prices only insofar as they are not sourced in the market and do not increase demand. The Russian nuclear corporation neither discloses production data of its mining subsidiary Uranium One operating in Kazakhstan nor makes any comments on its performance in an effort to avoid speculations.

Production complexities

Despite the profits the companies make in the current situation, production and financial difficulties keep eating away at the

financial buffer they have just managed to set up. This is highlighted not only by Orano in its comments on low operating profits, but by other uranium producers as well. **"We need to factor in the growing inflation pressure and potential delays in the production supply chain as such delays may affect our production plans,"** Kazatomprom writes. COVID-related supply disruptions have already caused the company to fall behind its production schedule, but Kazatomprom hopes to catch up with it by the year-end.

Cameco faces production issues, too. **"At the Key Lake mill, we have encountered some challenges with respect to the availability of critical materials, equipment and skills for some of our critical automation, digitization and other projects. In addition, after four years on care and maintenance, we have experienced some normal commissioning issues as we work to safely and systematically integrate the existing and new assets with updated operating systems at the mill."** Experiencing problems with the commissioning, Cameco does not expect production to resume before December.

Cautious rise

News is coming in that can be interpreted — despite the existing difficulties — as cautious production expansion. For instance, Kazatomprom announced that it would cut its 2024 production target by 10%. But given that the output has been since 2018 — and will remain through 2023–20% below the production target, a 10% cut is actually growth. It should be taken into account that the output commitments provided for by the production license also grow, so Kazakhstan will increase uranium production from 21–22 thousand tons in 2022 to 25–25.5 thousand tons in 2024.

Cameco also announced it would resume operations at its mothballed McArthur River and Key Lake mines. However, after the production is resumed, the two mines — as well as its flagship Cigar Lake mine — will operate at two thirds of their aggregate capacity: **"Starting in 2024, it is our plan to produce 15 million pounds per year (100% basis) at McArthur River/Key Lake, 40% below the annual licensed capacity of the operation. At that time, we plan to reduce production at Cigar Lake to 13.5 million pounds per year (100% basis), 25% below its annual licensed capacity, for a combined reduction of 33% of licensed capacity at the two operations."**

Orano announced it had signed an addendum to the current subsoil use contract enabling KATCO, a joint venture between Orano and Kazatomprom, to mine uranium at the South Tortkuduk parcel of the Muyunkum uranium deposit for about 15 years. The parcel reserves are estimated at about 46,000 metric tons of uranium. Interestingly, KATCO will not operate at its full capacity until 2026 either. **"Given the work required to bring this new parcel on stream, the KATCO JV's total production could be limited to approximately 65% of its nominal capacity (about 2,600 tons of uranium per year) for the next two years, with an estimated return to its full production level of about 4,000 tons of uranium per year in 2026 at the earliest,"** the company's press release says.

Rosatom also increases its mineral resources. In Namibia, Russian geologists discovered a uranium deposit suitable for in-situ leaching, the most cost-efficient and environmentally friendly method of uranium extraction. No such deposits have ever been found in Namibia before. Rössing (almost exhausted) and Husab (both owned by China General Nuclear Power Group) are open pit mines. At present, exploration activities continue on the flanks of the newly discovered deposit and preparations are underway to begin pilot production of uranium.

Conclusions

As the current market situation suggests, uranium producers had an opportunity to create a financial cushion during the first six

months of the year — this process started about a year ago. As the number and size of long-term contracts are growing, the future is getting more secure. **"Our pipeline of existing contracts ensures a sufficient level of confidence that additional production volumes in 2024 will be absorbed by market demand,"** says Kazatomprom's press release.

However, major uranium producers are far from going euphoric. **"In our opinion, the fundamental shift in the supply-demand balance is still going on, mostly due to false assumptions that secondary sources of supply are unlimited. This creates new opportunities for Kazatomprom as a reliable supplier,"** the Kazakhstan company wrote in its report.

Generally, the uranium market is affected by mixed trends. On the one hand, it is evident that concerns over the security of supplies raise interest in uranium and, consequently, push prices up, making buyers lean to long-term contracts. On the other, it is clear the drivers of this interest are not yet seen as fundamental. It should be also noted that the spot prices have not risen above the USD 50 per pound mark since mid-July.

While last year's autumn and winter were defined by an economic upturn, price hikes and a shortage of everything, energy commodities included, this spring and summer faced disruptions in trade, production and supply chains, but the acute crisis resolved itself in a growth of revenue.

Interest towards nuclear energy is on the rise but it has not yet turned into an all-encompassing trend. In this context, Rosatom is a driver of nuclear energy development in Africa and mainland Europe. The Russian nuclear corporation has obtained

construction licenses for new reactors in Egypt and Hungary, with first concrete to be poured in the latter in 2023. Keep in mind that previously first concrete was poured in Europe in 2007 (at Flamanville 3) and in Africa in 1976 (at Koeberg 2).

Politicians, economists and analysts keep saying that the future is vague and born right now, so it is not unlikely that uncertainty will be our new reality for long. No wonder that, amidst uncertainty, Cameco makes an almost philosophical remark in the management's discussion and analysis of its six-month performance: **"Managing geopolitical uncertainty is not new for us. We have a long history of working with global business partners and international governments in the nuclear industry. We have learned the importance of taking time to evaluate evolving situations to understand the long-term implications of our decisions. Our values have guided us through past geopolitical uncertainties and will continue to do so during these uncertain times. If we find a misalignment, we will take appropriate measures to manage the risk."**

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