NUCLEAR RENAISSANCE
Russia and CIS Nuclear Insight
www.nuclear.ru
Vol. 2 No. 1 | September 8, 2009

LOOKING FOR BETTER PRICES WHILE COUNTING ON SPECIAL TIES

Belarus – Russia: Brothers Or Partners?

September 2 Atomstroyexport announced the signing of a contract with RUP Belnipienergoprom concerning the development of a justification of investments document in connection with the construction of a nuclear power plant in Belarus. Besides, last week the Belarus government adopted two resolutions on the construction of the country's first NPP. One resolution approves the governmental program for the scientific support of the N-power development until 2020. The second one approves the Russia-Belarus peaceful nuclear cooperation agreement which was signed in Minsk on May 28, 2009. Now, a concurrence process is underway in Russia and Belarus regarding the intergovernmental agreement on the nuclear construction which is slated for signing later in October. The work also continues to draft a contractual agreement for the nuclear build to be signed in December. It seems that the only outstanding issue so far is the project funding.

This spring, Minsk sent an official request to the Russian government for a US$9bn loan for the construction of NPP. According to Nikolay Grusha, the Nuclear Power Department head at the Ministry of Energy of Belarus, of this amount US$6.5bn are planned to build the plant proper, with the reminder spent to build the industrial, transport infrastructure and housing. In June the country's first vice prime minister Vladimir Semashko stated that Russia was ready to render "the governmental financial support" and provide a governmental loan of US$9bn for the nuclear construction in 2010-2018. After the meeting with Russia's President Dmitry Medvedev in Sochi on August 27, Belarus President Alexander Lukashenko stated that an agreement of principle had been reached to open a credit line for the construction of NPP commencing 2010, with the final amount being agreed upon.

Grusha explained one of conditions to select the Russian design without a tender was Russia's giving a loan for the nuclear power plant construction. "Proceeding from Atomstroyexport's foreign construction experience, the contractor pays for 85% of the construction costs and the customer funds 15%. But taking account of our union relations, Russia is ready to provide a 100% loan for the construction of the nuclear power plant," he said. He also said the Belarus party was looking up to projects of Novovoronezh and Leningrad second phases. "As of the beginning of this year, the cost of construction of two reactors like at these plants was about US$6bn. The Russian party counts that the cost of Belarus two reactors would be US$6bn – US$6.5bn," Grusha said. Thereat, he added that the Belarus insists that Russia would also finance the building of the required infrastructure and industrial basis.

However, a discrepancy in comments made on the results of the heads of state's Sochi meeting calls for attention. According to Lukashenko, the loan issue has been agreed upon, of principle. The Russian finance ministry's press service clarified that "the loan issue was not raised" during the Belarus nuclear construction discussion. August 31, at a media conference in

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Top Features:

*The cost of the governmental contract to build two reactors of **Leningrad Phase II** signed with SPb AEP in March 2008 was RUR136.758,6bn. An average weighted exchange rate of US dollar to ruble was RUR23.8 for US$1, as of March last year. Thus, the cost of the contract was US$5.7bn at the time of signing.*

Minsk, Mikhail Zhuk, leading production engineer of the project management division within the NPP Construction Directorate, confirmed that the loan issue has not been solved. “The amount of nine billion dollars is large even for Russia,” he said. Also, Zhuk linked the issue of signing the contractual agreement on the nuclear construction with the project financing. “We are working on these documents but everything butts against the financing issue. When the issue of provision of the Russia loan is finally solved, we will be able to move forward as regards the signing of technical documents,” Zhuk said.

The US$6.5bn voiced by Grusha and the reference to new reactor projects in Russia is interesting from the point of view of disputes between Russia and Belarus on the cost of the future NPP. The essence is that initially Moscow planned to supply the plant to Belarus at world prices. In particular, in March the Atomstroyexport’s top management spoke of EUR3,000 (US$4,290) per kilowatt of installed capacity. Belarus was insisting on a special price nodding to the union state status and taking account of the general price drop for hydrocarbons, metal etc. “It is not an ultimatum… but there is a topic for discussions,” Mikhail Myasnikovich, chairman of the presidium of the national Academy of Sciences of Belarus, told NR, adding that price indicators are “taken painfully” by the Belarus party. Thereat, Mink was aware that the price reduction for Belarus could create an undesirable precedent for Russia in the world market. “Therefore, we should be guided by the world prices, but with the account taken of the fact that we are a union state,” Myasnikovich said.

Another argument for the price reduction, as Myasnikovich believes, is the reduction of the construction intensity, including at nuclear facilities, in the background of the financial crisis. “We can state that our nuclear power plant project is not at the peaking demand. This also should be taken account of when making an integrated cost estimation,” he said. At the same time, the amount of US$6.5bn (EUR4.5bn) is quite comparable to that of Belene NPP in Bulgaria where the construction cost of two reactors would be EUR5bn, even with an escalation of EUR1bn added. In addition to the loan proper, the experts think that another stumbling block at the negotiations with Russia is the fact that Belarus is asking for US$1.5bn in real cash out of the US$9bn to fund the infrastructure in the NPP construction region. One more solution could be a “conversion” of the Russian loan into Russian investments. In this case, major bulk of electricity to be produced by the plant would be owned by Russian utilities.

At the international conference “Belarus-Russia: Castling or Reset?” which was held in Minsk on August 27, Belarus economist Leonid Zolotnikov said the nuclear construction was a political project for Russia, in the first place. “There are not so many countries in the world where Russians can get an order for the construction of a NPP,” he emphasized. The Russian project was selected without bidding also because of the fact that Belarus did have other actual offers. The Westinghouse Electric’s offer was not a bid a priori because there is no a peaceful nuclear cooperation agreement between Belarus and the U.S. The project with a EPR reactor offered by AREVA did not suit because of the large unit capacity of the system. The offer made by the China Guangdong Nuclear Power Corporation (CGNPC) to act as the engineering company for the Belarus nuclear build to the Russian project was used rather as a pressing tool for Moscow and was categorically rejected by the Russian party as unacceptable, according to the NR’s information.

On the other hand, exactly because of the political nature of the project “it is extremely difficult to forecast its implementation from the economy point of view,” Zolotnikov thinks. But even setting aside political nuances, the loan of US$9bn requested by Minsk is a

*The first nuclear power plant in the **Republic of Belarus** is to be built to the Russia design AES-2006 developed by SPb AEP basing on the AES-91 design. The principal construction contractor will be Atomstroyexport. The plant will comprise two reactors of a total capacity of 2,400 MW. The first reactor commissioning is slated for 2016 with the send one to follow in 2018. The facility is to be sited in Ostrovets, Grodno region. Atomstroyexport is to build the plant of the turn-key terms.*

great amount in conditions of the crisis, the Belarus expert says. “It should be also considered that this is not the only loan we asked and are asking Russia for,” he noted, adding that Russia’s gold and foreign currency reserves were depleting at a rate of US$2bn to US$4bn a week. Concerns of other nature are also expressed. President of the Russian Institute of Energy Policy Vladimir Milov believes the Russian massive nuclear build program “is not backed up by companies’ capabilities.” Therefore, “the nuclear construction project in Belarus threatens to turn into a smoldering deal with dark prospects,” the expert thinks. Besides, Milov noted the nuclear construction abroad has revealed that “the Russian nuclear machine engineering capabilities are in poor conditions and cannot produce equipment in the required amounts.”

TOPIC A

ARMZ: Chasing Khans’ Treasure

The Russian Uranium Holding Atomredmetzoloto (ARMZ) is planning to become one of three largest uranium miners of the world. The set task is to be accomplished through an expansion to foreign markets. This summer has been marked by a number of significant events in this area: late August an agreement was signed to set up a joint venture for uranium mining and processing with Mongolia and in June ARMZ exchanged assets with one of the world’s uranium leading companies, Uranium One Inc. In Russia ARMZ’s future plans to build up productions are linked, in the first place, with the development of Elkonskoye Ore Field.

August 25 during Russian President Dmitry Medvedev’s visit to Mongolia an intergovernmental agreement on the setting up the JV Dornod Uran on parity basis was signed by SC Rosatom director general Sergey Kiriyenko and head of the Atomic Energy Authority of Mongolia Sodnomyn Enkhbat. The company founders, who have equal shares, are Atomredmetzoloto on the Russian side and limited liability company MonAtom on the Mongolian side. The joint venture’s output could be as high as about 2,000 tons per year. The new company areas of activity are exploration and mining of uranium-containing ores; transportation, processing, dressing of mined minerals and sales of end products; building and operation of uranium mining capacities.

Commenting on the signed agreement, ARMZ’s director general Vadim Zhivov noted that Russia “is the most logical partner for Mongolia in uranium mining development.” The Dornod Hub deposits with total reserves of about 40,000 tons of uranium were discovered in the 1970s-1980s by Soviet geologists. The Soviet specialists built a mine where in the 1980s uranium ore was extracted and transported for processing to the Priargunsky Industrial Mining and Chemical Union (PIMCU). A total of about US$600mn in current prices were invested by the Soviet Union in exploration, construction and development of mining capacities and related infrastructure. The latter included a miners’ camp, roads, electricity transmission lines and water supply piping. In 1991 the activities were terminated at the Dornod Hub deposits.

Meantime, the Russian-Mongolian deal evoked a strong criticism in the uranium community. The evasive wording used by Russian officials – the Dornod Hub – makes the front of a specific project, Dornod, which, until recent, was developed by Canadian Khan Resources Inc. At present, the holder of the only license for uranium mining in Mongolia is the Central Asia Uranium Company (CUAC), which shareholders are Khan Resources (58%), Mongolia public company Mongol Erdenet (21%) and Russian PIMCU (21%). Khan Resources is also the project operator. This March Khan Resources presented results of feasibility study for Dornod Project that confirmed proven economic expediency of the deposit development.

Under Canadian instrument NI 43-101, project indicated reserves amount to 25.3 million tons at an average grade of 0.116% U3O8 (64.3 mln lbs of U3O8) and inferred

__ARMZ__ is one of world’s five largest uranium miners and holds top second in uranium reserves. As of early 2009, its uranium reserves amounted to over 538,000 tons. In 2008 ARMZ produced 3,687tons of uranium and plans to extract 4,693 tons of uranium in 2009. In coming years the company plans to become one of the three largest uranium miners in the world and invest in the business development RUR235.5bn (about US$7.4bn) in 2008-2020 to meet the target.

reserves amount to 2.2 million tons at an average grade of 0.050% U3O8 (2.4 mln lbs of U3O8). The feasibility study was carried out basing on the uranium long-term price of US$65 per lb U3O8 and fifteen years of the mine operation. According to the feasibility study an annual average production capacity of the mine will be 3 million pounds of U3O8 at a cost of US$23.22 per lb U3O8. “We are delighted with the results of this study, which further demonstrates the high quality of this deposit, president and CEO of Khan Resources Martin Quick said in March. “The Company intends to proceed with the negotiation of an Investment Agreement with the Government of Mongolia at the earliest possible date.”

However, already in mid July Khan Resources and other companies that explore for uranium in Mongolia received notifications suspending their licenses due to alleged violations for three months. These days also featured reports on the Mongolian Parliament’s entering the final stage of review of amendments to the legislation (so called Nuclear Energy Law), which could dramatically change balance in uranium mining in the country. The existing legislation on subsoil resources enables the state to own up to 50% of interest in projects at deposits which have been developed with the budget funds and up to 34% if Mongolia hasn’t invested in such projects. Projected changes to the legislation assume a minimum public interest of 51% in all mining projects.

A draft resolution on adoption of the state policy in the area of radioactive minerals has been put on the list of documents to be reviewed by the fall session of the Great State Khural (parliament) of Mongolia. The adoption of the Nuclear Energy Law may terminate already granted licenses. Pretence could be the «alleged violations» as in case of Khan Resources. Or, for instance, the selling of the company as it was done with Canadian Western Prospector. This March Western Prospector agreed to sell all its stock to CNNC International Ltd., an affiliate of China National Nuclear Corporation. And in April, Western Prospector was notified on three-month license suspension in regard to the development of Gurvanbulag Deposit in Saddle Hills.

Meantime, in this uncertain situation here comes ARMZ as “the most logical partner for Mongolia.” Thereat, this logic is supported by prospects of Mongolia-Russia’s cooperation development in other areas of economy, which were also discussed during President Medvedev’s visit. Such examples have already taken place in other regions. For example, after AREVA purchased the Canadian-British UraMin in 2007. One of UraMin’s assets was Bakuma project in the Central African Republic. The CAR government accused AREVA of “disregard of the rights and interests” of the country’s population, stating UraMin had breached terms of the deposit exploration contract. The parties succeeded in settling the dispute through negotiations and the CAR forced AREVA to offer better terms.

In this context, Khan Resources’ urge to follow democratic norms appears utopia. «Khan is the legitimate 100% holder of an exploration license at the Dornod uranium project as well as a 58% holder of a mining license held by CUAC,» Martin Quick said after the signing of JV Dornod Uran agreement. He said that this would still be the case «after the dust has settled,» and added, «If the Mongolians do choose to hand over their uranium assets to the Russians, and thwart the democratic process which they have been following since independence, that of course is their right. But I really do not think for a moment that this will be the case.» At the same time, it is not excluded that Khan Resources will retain certain participation in Dornod provided the negotiations with CUAC shareholders, who, while being minority shareholders, have got the full voting status under current conditions, are successful.

Today, Khan Resources’ interest in Deposit No 2 and two thirds of Deposit No 7 at Dornod equals 58%. In addition, the company owns 100% in the remainder one third of Deposit No 7. Thus, a total share in the uranium assets of these two deposits amounts to 69%. An informed industry source explained NR that now the issue is “what properties would be on the asset list” of JV Dornod Uran. At a certain deal, the parties may come to an agreement without a great jeopardy to Khan Resources’s rights, moreover, as Rosatom noted, the Dornod Uran activities “may involve legal entities of a third party as company shareholders, provided it’s agreed with the founders.” “We are considering participation of foreign companies in the projects as well,” Zhivov confirmed.

The project implementation will allow setting up a joint uranium miner with reserves of more than 50,000 tons. Under the agreement, the joint company is exempted from taxes and other mandatory dues because of the Russian labor to be involved. Zhivov noted there are many foreign companies operate in Mongolia and majority of deposits are owned by them. He emphasized, however, neither of the western companies has started mining uranium and a realistic prospect of resuming the mining “is linked to the development of the Russian-Mongolian cooperation.” In other words, it may be assumed that “the logical cooperation” of Russia and Mongolia in uranium mining would expand to other projects. For instance, to the already mentioned Gurvanbulag.

FOCAL POINT

Don't Judge A Yellowcake By Its Yellow Skin

Last year the Russian exploration company UGRA-Geofizika presented an ore-bearing assessment of Orel Region in Russia. The study considered the area located north to north-east of Orel City as having the highest ore-bearing potential. However, the major outcome of the study was the identification of a large potential uranium field in south-west of Orel Region. According to geologists' estimates, this ore field probable uranium reserves in P2 category are not less than 250,000 tons of uranium. For comparison: explores reserves of Streltsovskoye Ore Field in Chita Region, which comprises 28.4% of explored and 94% of on-balance reserves of Russian uranium, are 170,000 – 175,000 tons. However, UGRA-Geofizika's study has not been requested so far.

UGRA-Geofizika director general Anatoli Trachenko explained the Orel Region study results had been obtained earlier and refined during the recent 1-2 years. Still, it seems the Orel Region deposits aren't of great interest for the industry. Yet the country sustains a natural uranium deficit because in addition to cater its own nuclear power, it has to export uranium. Trachenko estimates the deficit as about 9,000 tons of uranium annually. In such situation, the UGRA-Geofizika top executive does not understand a sense of investing much in the Elkonsky Uranium Region. Orel Region's geology is favorable, unlike Elkon where "solid granite and drilling is hard." "Recovery is hard and cost is head-breakingly high," he adds.

The Elkonsky Uranium Region is developed in frames of the state program "Comprehensive Development of Southern Yakutia". In March 2009 EGMK-Project was established to develop the project documentation for the Elkonsky Mining and Metallurgical Combine. SC Rosatom will execute shareholder's authorities in the company on behalf of the Russian Federation. The contribution by the state to the company's equity capital is RUR2,657.1m (about US$84.5m), including RUR2,391.4m (about US$76m) in 2009 and RUR265.7m (about US$8.4) in 2010. SC Rosatom has been put in charge as the responsible contractor of the investment project "Development of the Project Documentation of Elkonsky MMC" where the project participants are ARMZ, Elkonsky Mining and Metallurgical Combine and Southern Yakutia Development Corporation. The approved investment project cost estimates are RUR2,657.1m (about US$84.5m). The project documentation is planned to complete in 2010.

According to Trachenko, natural uranium occurrence depth in Orel region is 200 to 300 meters. He says after the exploration is over, the field surveys are needed to refine the data, and only then the issue of building a mine may come up. With that, he believes the additional exploration and balance will not require large money. "These are pennies as compared to billions which are foreseen for the Elkonsky MMC," he says. "The question arises: why nobody does anything here?" he adds. Trachenko says the mining cost may be determined only after the additional exploration, though the deposit accessibility is backed up by the fact that "Orel Region is the only territory in the whole Europe covered with the black soil." Therefore, considering weather conditions, the mining cost will be "much cheaper" than in Elkonsky Region.

Trachenko believes the budget funding of the uranium development in Orel Region is complicated by the selection of the recipient of the public money, because "the cost of such deposit in current process may be about US$50bn." He also criticized the existing geological survey reporting system, noting that sometimes the public money spending, in particular, with regard to natural uranium, "covered up" with earlier discovered deposits, "which were discovered as back as the 1970s." "Run-around reposts are not a problem. But we are ready to present the result," he adds. Trachenko says YUGRA-Geofizika technologies substantially reduce survey time: from 7-10 years to three months. "Our technologies allow determining energy tails that reach the Earth's surface. Each mineral contains energy. By studying these tails we get an understanding what is where," he says.

Meantime, Atomredmetzoloto is reserved in its assessments of uranium mining prospects in Orel Region. The NR was told by company's director general Vadim Zhivov,

*Total investments in the construction project of the **Elkonsky MMC** are estimated as RUR90.1bn (about US$2.9bn). The combine is to reach its nameplate capacity of 5,000 tons of uranium per year in 2024. The project is supposed to implement with involvement of private investors, including foreign ones. Preliminary estimated reserves of the Elkonsky Ore Region are about 350,000 tons or 7% of the world reserves and reserves of the region as a whole amount to 600,000 tons of uranium.*

*According to **ARMZ's** annual report, in 2008 the holding's companies mined 3,687 tU that is by 4.5% more than in 2007. Main bulk of mined uranium rests with PIMCU – 82.7% of the total mining output or 3,050 tU in absolute terms. The remainder of 17.3% is shared by Dalur (410 tons), Khiagda (61 tons), JV Zarechnoye (166 tons). In 2008 sales proceeds were RUR13.250bn (US$421m) that is 228% greater than in 2007. Net proceeds of 2008 dropped 52% against 2007 to make RUR209m (about US$ 6.6m).*

the new deposits should be put on balance first. "As soon as this is translated from rumors to categorized reserves which can be licensed, we certainly will be interested in them," he said. Zhivov noted that at this time "it's too premature to say that mining in Orel and Voronezh Regions could be significantly cheaper." "So far, it's difficult to speak about any cost indicators. But if cost-effective deposits are discovered, we will revise our strategy towards deposits which are cheaper to mine," he emphasized. So far, one of the company's strategic development priorities is the development of the Elkonsky Uranium Region.

In his recent interview with RBC Daily Zhivov said the work is nearing completion to justify investments in the development of the Elkonsky Deposits and "shortly" a bid would be called for to select the principal designer. In parallel, together with SRK Consulting the work is underway to make earlier surveyed reserves compatible with western instruments "to make this project clear and attractive to world's largest uranium market players." "In the first place, we are interested in strategic investors, i.e. the companies which operate in other sectors of nuclear," Zhivov said, adding that "we are ready to give up to 49% of shares to outside investors." He believes at the next stage ARMZ must turn into a full-scope mining company which is dealing, among other, with uranium sales. "Today, Russia does not trade natural uranium. We plan to change this," he said, adding that uranium mined outside Russia would be supplied to international market, if it is not demanded by the Russian nuclear industry.

CIS REVIEW

Ukraine: Playing Compromise On The Verge Of Logic

Ukrainian President's decree No 681/2009 of August 27 "On the Decision by the National Security and Defense Council of June 5, 2009 "On the Development of Markets of Fuel and Energy Resources in Frames of the Implementation of the Energy Strategy of Ukraine until 2030" has charged the Cabinet to solve the issue of establishing a nuclear fuel fabrication facility in the country by the end 2009. The new facility should be established "on the principles of competition", the decree states. Besides, the Ukrainian Cabinet, when signing contracts for nuclear fuel supplies for nuclear power plants, should "avoid accepting terms which restrain Ukraine's capabilities of diversifying nuclear fuel supply sources and monopolize certain nuclear fuel cycle services." The government has also been charged to draft within a month term an agreement with Russia concerning the cooperation in uranium mining and processing.

At present, Russian TVEL Corp. is the sole nuclear fuel supplier for Ukrainian NPPs. Since 2005 NAEC Energoatom has conducted tests of Westinghouse Electric-made fuel at South Ukrainian-3, which stays together with Russian fuel assemblies in the reactor core. Westinghouse is planning to transfer to NAEC Energoatom 42 fuel assemblies in the late 2009 – early 2010 to be loaded in the South Ukrainian-3 reactor. In case the tests are successful, the utility intends to buy fuel in a quantity sufficient for annual charge of three reactors from Westinghouse after 2010. Besides, earlier Ukraine announced the plans to put on line its own nuclear fuel fabrication facility in 2015.

It is known that as of now, Ukraine has received two offers to build the facility: from TVEL and Westinghouse Electric. A final decision on whom the project is to be implemented with is still pending, but experts have no doubts that it will made in favor of the Russian producer in coming months. This track is supported by the agreements on mutual concessions in the area of energy reached by prime ministers of both countries at the meeting in Gdansk on September 1. Vladimir Putin agreed that Kiev would pay only for the really consumed natural gas. Next year, Naftogaz of Ukraine will

buy twice less fuel that it imported in 2007, i.e. 25 billion cubic meters against 52 billion cubic meters. Yulia Timoshenko explained the drop in consumption was linked to its replacement by nuclear generation, coal and other alternative energy sources.

In exchange for Putin's consent not to demand Ukraine to consume all contracted natural gas, Timoshenko agreed to make a concession for Moscow as regards natural gas transit rates and to propose the Russian companies beneficial contracts in nuclear. The same was pointed out by Alexander Gudyma, the Ukraine's prime minister advisor and a Superior Rada member for FEC: "There may be, at least, two subjects for compromise between Ukraine and Russia. First of all, it is a stake on the Russian gas transit through the territory of Ukraine. Another one is the negotiations on building of a nuclear fuel fabrication facility in Ukraine." In addition, Timoshenko expressed readiness to support Russian banks' entering equity capitals of Ukrainian banks and participation of Russian companies in corporatization of Ukrainian industrial assets.

On the whole, Ukrainian Kommersant thinks the agreements with the Russian prime minister improve Timoshenko's chances in the struggle for the presidential chair. Meantime, an informed source within Russian nuclear industry thinks that there are no commercial constraints to the signing of a fuel fabrication facility deal between TVEL and NAEC Energoatom. "At present, the documents on the facility construction are being reviewed by the Ukraine's superior powers," the source clarified. Earlier, TVEL's vice president Vasili Konstantinov expressed an opinion that Kiev is dragging out the facility construction issue the same way as the signing of the long-term nuclear fuel supply contract that was due before July 15. In turn, late July NAEC Energoatom's vice president Olga Kravets assured the contract would be signed shortly and noted the importance of the construction of a fuel fabrication facility in Ukraine.

Ukrainian politicians differ in their opinions regarding a preferable partner in the facility construction project. Petr Simonenko, leader of Ukraine's communists, believes the American fuel assemblies "are an absolute unfit" for the Ukrainian NPPs. "They are incompatible with the equipment which we have in operation and therefore, the coming of the American company and the nuclear fuel fabrication facility construction with the American involvement may entail the most tragic consequences for Ukraine," Simonenko said. "It has been beneficial for Ukraine to cooperate with Russia in this area, since we have had long-lasting ties in this industry that date back to the USSR times," he added. In turn, opposition Cabinet's fuel and energy minister Yuri Boiko believes that when selecting a partner, "one has to consider which company we can engage our equipment and capabilities with," he said.

However, statements by Ukrainian leaders are rarely unambiguous. A few days prior the meeting with Putin, Timoshenko stated to the World Ukrainian Congress in Lvov that she was ready to support involvement of Westinghouse and Holtec Intl. in the construction of the nuclear fuel fabrication facility "with the aim of diversification and getting free from 100% dependence." The last phrase raised bewilderment on the part of experts who supposed the Timoshenko's speechwriters confused something when writing her address. Theoretically, Holtec Intl. could have done a part of the work, i.e. to erect buildings, fresh fuel section, APCS and nuclear material accounting systems, but such work scope could have been done by Ukrainian companies also, much cheaper and without jeopardizing quality, experts say. However, only Westinghouse is capable of fitting the facility with fuel bundling lines and other special tools, moreover, of the technology transfer.

More sharp criticism for "populist statements" on the nuclear fuel fabrication facility and development of the feedstock basis was poured on Timoshenko by Bogdan Sokolovsky, the representative of the Ukrainian President on international issues of energy security. He said that the State programs aimed at the development of nuclear fuel cycle and own uranium production are failing in Ukraine. "Of about UAH889m (US$100m) planned in the state budget for these purposes in 2009 only about UAH130m were spent for these purposes that is nearly twice less than in 2008," he said. "By its decree No 883 of August 19, 2009, the Ukrainian Cabinet rechanneled the budget funds targeted to these strategic nuclear power programs to cover current spendings of the coal industry," a Ukraine President's secretariat statement of August 26 says. Therefore, the secretariat believes the government has made a populist decision called for to temporarily quiet Ukrainian coal miners at the expense of NFC program funding cuts.

Ukrainian *needs in natural uranium are about 2,500 tons annually, while its production does not exceed 1,000 tons. Total reserves of uranium in the country are estimated at 180,000 tons. NAEC Energoatom is the operator of all four existing nuclear power plants in Ukraine. Zaporozhie, South Ukrainian, Rovno and Khmelnitsky NPPs altogether operate 15 water-water reactors of a total installed capacity of 13.83 GWe.*

According to Sokolovsky, the government's moves lead to higher dependence of Ukraine on external suppliers of nuclear fuel and weakening of its position at negotiations with potential suppliers of fuel and its fabrication technologies. "Such approaches of the current government facilitate realization of interests of foreign companies, primarily, Russian, which stand up for their interests consistently and hard," he emphasized. "In this context, the populist statements by the Ukrainian prime minister of so-called energy independence and so-called massive development of uranium deposits and nuclear fuel fabrication plant in Ukraine sound alerting," Sokolovsky continued. He said these statements contradict the real situation at least because they were made already the government had made a decree to limit funding of programs in the field of nuclear fuel cycle.

Under decree No 883 the funds of the target program "The Measures to Establish Nuclear Fuel Cycle (NFC)" should be redistributed to the benefit of the program "The Construction of Power Units of Nuclear, Hydro and Thermal plants and the Cost Reduction of Loans for Coal Inventories". In 2009 in frames of the NFC program the plan was to spend UAH1.1bn. Of this amount about UAH560m were assumed to spend to build a uranium production facility at the Novokonstantinovskoye Deposit. The mine commissioning would have fully met Ukrainian needs in natural uranium. Now, the funding has been cut by one fourth. The amount of UAH150m to be allocated this year to build the mine is now channeled to build Dnestrovskaya Hydro Storage Plant. In parallel, Yushchenko directs the cabinet to develop a draft agreement with Russia concerning the development, mining and processing uranium ores to provide for uranium mining "for full meeting Ukraine's nuclear power needs in uranium feed in mid-term."

PLAIN FACTS

• **Ukraine and Russia** will draft the intergovernmental agreement concerning the cooperation in the construction of the 3-rd and 4-th reactors of Khmelnitsky nuclear power plant by the end of September and will start its interagency coordination in early October. The parties agreed on the timeframe during their negotiations in Moscow on August 28. The negotiations discussed authorities and responsibilities of the parties at different stages of design, construction and commissioning of the reactors. The Russian party believes the optimum option is that of total responsibility of Atomstroyexport for the implementation of the entire array of works to build the 3rd and 4th reactors on conditions of the principal contractor and with the right of independent involvement of subcontractors and sub-suppliers under this project.

• September 1 in Sopot an agreement concerning the importation of irradiated research fuel to Russia was signed by **Russia and Poland.** The agreement provides for a legal basis for repatriation of the INF kept in the Institute of Atomic Energy Polatom in Otwock-Świerk, as intended for temporary storage and subsequent reprocessing. "The cooperation between Russia and Poland in the peaceful uses of atomic energy is mainly focused on support of research reactors operation," a Rosatom's statement says. Two research reactors were built in Poland: Eva of 10 MW, which has been shut down, and Maria of 30 MW which is in operation. The INF offshipment will be carried out in frames of the Russia-U.S. agreements on repatriation of highly-enriched fresh and irradiated nuclear fuel of reactors built to the Russian designs.

• **The State Corporation Rosatom** agreed on high completion degree, technical feasibility and expediency of construction completion and commissioning of the fifth reactor of Kursk nuclear power plant. Rosatom's director general Sergey Kiriyenko said during the visit to the site on September 4 that Rosatom Managerial Board directed by its decision of August 3, 2009, Atomenergoprom to work through and submit for approval by October 1 this year a justification of economic effectiveness of the investment project on Kursk-5 construction completion and related financing proposals. In addition, Russian deputy chairman of the government Igor Sechin directed on August 18, 2009, the Ministry of Energy, the Ministry of Finance and SC Rosatom to submit proposals on investing in this project by October 1, 2009.

• **Atomstroyexport and Belnipienergoprom** signed a contract for the development of a justification of investment document in regard to the construction of a nuclear power plant in Belarus. The document was generated in frames of the joint action plan of Russia and Belarus to implement priority measures concerning the plant construction in 2009. "According to the contract terms, Atomstroyexport will provide necessary assistance, in the agreed scope, to Belarus partners in the development of the justification of investments. The work is planned to complete before the end of 2009," an Atomstroyexport's

statement of September 2 says. At present, Russia and Belarus carry out interagency coordination of the agreement on the cooperation in the nuclear construction, which is planned to sign this October.

• The government of **Uzbekistan** gave its approval to setting up the Uzbekistani-Chinese joint venture to explore uranium in Uzbekistan. The new joint venture is set up by the State committee for Geology and Mineral Resources of Uzbekistan and China Guangdong Nuclear Uranium Co., an affiliate of China Guangdong Nuclear Power Co. in frames of the agreement concerning the cooperation in the area of uranium signed by Goskomgeologiya of Uzbekistan and the National Development and reform Commission of China. The JV «Uz-China Uran» equity capital was set as US$4.6m equally shared by the parties. «Uz-China Uran» will undertake the entrepreneurial risk geological surveys to discover black shale uranium deposits in Boztauskaya Area in Navoi Region.

Nuclear Renaissance is published 48 times a year by JSC Nuclear.Ru as a stand alone, broad coverage of nuclear news, interviews, features, analyses gathered in Russia and CIS countries by the publisher's staff. The cost of a yearly subscription is US$2,000.

The information sources are acknowledged credible and accurate by the leading international, nongovernmental, public and private establishments. The **Nuclear Renaissance** is committed to information accuracy, however, it assumes no liabilities for the use or effect of any information or data contained in the **Nuclear Renaissance**.

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