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# Russia's first nuclear project in the European Union

RIA Novosti - 24/12/2007

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MOSCOW. (RIA Novosti commentator Tatyana Sinitsyna) - After the EU gave its approval for the Russian-Bulgarian agreement on building a nuclear power plant in the small Bulgarian town of Belene on the bank of the Danube, the two countries are in the starting blocks waiting for the main treaty to be signed in late January of 2008.

The European Union gave the okay for the nuclear project between Moscow and Sophia after a thorough review by experts who found that the Russian project meets the European EUR standards. These standards are basically the same as those of the IAEA, but not entirely identical. The European Union's say-so means that the full complement of legal documents has been obtained and the Russian company Atomstroyexport has left the paperwork stage behind.

Under the European Atomic Energy Community Treaty (Euratom) Bulgaria had to notify the European Commission's Directorate-General for Energy and Transport about the Belene project which the country signed on the eve of its admission to the European Union (November 29, 2006). The European Union's acceptance might have been routine except for the symbolic importance the Bulgarian project has for Russia. By winning a prestigious tender Russia is back in the European market of nuclear plant construction after a long pause that began in the Soviet times. The Belene nuclear plant is Russia's first project in the European Union.

Atomstroyexport was competing for the contract against powerful Western corporations including the Czech Skoda, the Japanese Toshiba and Westinghouse, an Anglo-American consortium. It was an uphill struggle. The Bulgarians had invited more than 200 experts from 8 countries, including such premier-league consultants as Parsons and Deloitte Central Limited, to examine the project.

However, it became clear early on that Russia offered the most attractive model, the most effective technologically, the safest, cheapest and most durable (guaranteed to operate for 60 years).

The tender review panel that sifted off bids picked two front-runners, Atomstroyexport and Skoda. The favorites were presented with further requirements that called for modifications to the original bids. The Bulgarians wanted the impossible: cutting construction time and costs even further. But Russia stood strong as it had no intention of building at a loss. At one point Moscow got tired of Sophia's dithering and began to lose interest. Eventually, the Bulgarians had to admit that the Russian advantages were overwhelming.

What has Russia offered? The best that it has today - the AES-92 project that meets the highest world standards. It is based on two new-generation VVER-1000 reactors (water-water 1000 megawatt energy reactor) modernized, very safe, reliable and efficient.

The Belene project has a unique combination of active and passive safety systems that ensure the highest possible level of protection.

The designers foresaw the worst case scenarios, such as a sudden power blackout, fracture of the reactor body and even a plane falling on top of the building. The plant has a double protective shell, the inner made from steel

and the outer from reinforced concrete. The most intriguing part of the safety system is the molten-core catcher, an original Russian idea.

The project will cost Bulgaria 2.6 billion euros compared with the alternative Czech bid of 3 billion. The Russians were able to charge less because the Belene construction site is a former Soviet project that was shut down in 1991 when the Soviet Union collapsed. By that time 40% of the construction work had been completed and 60% of the equipment had been delivered.

The first Belene reactor is to be built within 5-5.5 years. That will allow Bulgaria to regain its energy security after the European Union ordered the Kozloduy nuclear units to be shut down. The Belene nuclear power plant will enable Bulgaria to resume exporting electricity.

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