

## Will the construction of a nuclear power plant in Belarus exacerbate the country's energy dependence on Russia?

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During Russian PM Dmitry Medvedev's working visit to Minsk on 18 July, Russia and Belarus signed a general contract for the construction of a nuclear power plant in Belarus. The signature brought to an end the complex negotiations which had been underway since January 2009 involving the leadership in Minsk, the Russian government and Atomstroyexport, the Russian company that will be the main contractor of the investment. However, the power plant's future ownership structure, management arrangements and terms and conditions of profit sharing remain unclear. The Belarusian leadership hopes that with the launch of the nuclear power plant, it will be able to reduce gas imports from Russia, gas being the main resource used in producing heat and electricity in Belarus. This should in turn reduce the costs of energy generation. In addition, Minsk expects that the new investment will allow it to export electricity surpluses to the European Union, including Poland. Agreements concerning the power plant have been concluded over the last year or so and, according to these, Russia has acquired partial control of the Belarusian electricity grid, especially with regard to the transmission of energy to foreign markets. Russia is also the sole creditor and contractor for the investment, and the sole future provider of nuclear fuel. Therefore, implementation of the project will exacerbate Minsk's already significant dependence on Moscow in energy and political terms.

### History of the project

In 2006 the Belarusian government took the initial decision to build a nuclear power plant with a capacity of over 2000 MW. In the years 2007–2008, bodies in charge of the implementation of the project were designated, and international nuclear companies were invited to co-operate. At that point, Atomstroyexport (Russia), AREVA (Germany/France) and Toshiba-Westinghouse (Japan/USA) expressed interest in building the plant. Talks were also opened with China's CGNPG. In late 2008, Minsk announced that of the three prospective locations under consideration, the site in Astravyets in the Hrodna Province had been selected (it is located 23 km from the Lithuanian border, 55 km from Vilnius, approx. 90 km from Lithuania's planned nuclear power plant in Visaginas and over 100 km from the Polish border). The decision triggered protests by the Lithuanian government, the Belarusian opposition and independent environmental organisations which argued that the choice of

location had not been sufficiently justified. Nevertheless, the Belarusian leadership upheld the decision and, in early 2009, designated Russia's Atomstroyexport as the main contractor for the investment (contrary to earlier announcements, no open competition was held).

After lengthy and tense negotiations, on 15 March 2011 Russia and Belarus finally signed an intergovernmental agreement on co-operation on the construction in Belarus of a two-unit nuclear power plant with a total capacity of 2400 MW. That agreement led to the creation, in June 2011, of Energoconnect, a Russian-Belarusian joint venture tasked with organising and controlling the export of electricity produced in Belarus (including electricity from the planned nuclear power plant) and, possibly, the re-export of Russian-generated electricity. The founders of the joint venture, i.e. the Russian energy company Inter RAO UES and Belarus's

**The general contract for the construction of a power station brings an end to many years of exhausting talks over the implementation of the project to build the first nuclear power plant in the history of Belarus.**

state-owned Belenergo acquired equal, fifty per cent stakes in the new company. On 11 October 2011, a framework contract for the construction of the plant was concluded. On 28 November this was followed by an intergovernmental credit agreement on the financing of the investment from a Russian credit line of up to US\$ 10 billion. At the same time, a new provision was

added to the agreement of 25 November 2011 on the sale of a fifty per cent stake in the Belarusian gas pipeline network to Russia's Gazprom, concerning the export of electricity produced from Russian gas. It was agreed that joint Russian-Belarusian control of electricity exports to countries outside the Customs Union of Russia, Belarus and Kazakhstan would be established as of 1 January 2015. According to preliminary reports (the exact content of the provision is not known), co-operation in this area will be regulated "according to each party's respective contribution". Meanwhile, first serious preparatory works on the Astravyets site commenced in June, including excavations for the first nuclear unit (nine months behind the original schedule). The construction of office space, workers hotels, storage facilities, access roads etc., is underway.

The general contract was signed on 18 July, after being postponed several times since the spring of last year, ending the tedious efforts from both parties to reach agreement and this has opened the way for the project to be implemented.

## Terms of the investment

According to the current schedule (the delays in negotiations have forced the parties to change the timeframe of the project) the first unit with a capacity of 1200 MW will be commissioned in November 2018, and the second, which has the same capacity – in July 2020. The Russian contractor, Atomstroyexport, has pledged to build a turnkey plant in compliance with the standards in force in Russia, but also taking into consideration the guidelines of the International Atomic Energy Agency and the European Union. So far, however, no information is available on the Belarusian plant's future ownership structure, its management arrangements or the terms of profit sharing.

The cost of the investment has been estimated based on rates applicable to the construction of similar plants in Russia (in particular, the Baltic Nuclear Power Plant in the Kaliningrad Oblast). Under the agreement concluded back in November 2011, 90% of the cost will be covered from the Russian credit line. Funds will be disbursed as work progresses. The repayment will start six months after the plant is commissioned (but no later than April 2021) and will consist in 30 equal, six-monthly instalments. This means that the loan is granted for 25 years with a ten-year moratorium on repayment, at an average interest rate of 3.92%

(of which half is fixed interest rate, and the other half a variable interest rate adjusted for changes in the cost of loans to Russia on international financial markets). Belarus has agreed to cover the remaining 10% of construction costs (i.e. US\$ 1 billion) from its own funds. However, because it will have to repay approx. US\$ 6 billion of external public debt between 2013 and 2014, the Belarusian government has decided not to use up its currency reserves (currently worth approx. US\$ 8 billion) and has applied to Russia's Vnesheconombank (the same bank that will handle the Russian credit line) for a US\$ 500 million loan. The loan will cover the Belarusian contribution to construction costs over the next five years, which is estimated at US\$ 100–140 million annually on average.

## The interests of Belarus

The 2007 *Energy Security Concept of Belarus* and the *Strategy for the Development of the Energy Potential of the Republic of Belarus to 2020* adopted in 2010, both identify as one of the strategic objectives a reduction of the share of gas in the production of heat and electricity from the current level of approx. 95% to 60–55% in 2020. The launch of a nuclear power plant in Belarus is to play a key role in the implementation of this plan. According to calculations made by the Belarusian Ministry of Energy, it will allow a reduction in gas imports from Russia by

**Beyond its main task of supplying the domestic electro-energy market, the nuclear power plant in Astravyets will also be geared towards the export of the surplus power it generates to EU countries, including Poland.**

approx. 5 billion m<sup>3</sup> a year (Belarus currently imports a total of approx. 22 billion m<sup>3</sup> of gas a year). This, in turn, will drive down the cost of energy generation and reduce greenhouse gas emissions by 7–10 million tons a year. It has also been pointed out that the nuclear energy sector is much less susceptible to fuel price fluctuations than gas-powered energy generation and, consequently,

the nuclear power plant will enhance the stability of tariffs for consumers. The launch of a new power plant with a capacity of 2400 MW will satisfy Belarus's growing electricity needs which, according to the long-term forecast of the demand for energy to 2020, will require a maximum of up to 650 MW of additional capacity (the current total capacity of all power plants in Belarus is approx. 8300 MW). The extra capacity will also offer more room for manoeuvre in planning the modernisations of existing plants, many of which are obsolete and ineffective.

The Belarusian government also hopes that part of the electricity generated by the new power plant will be exported to neighbouring countries, including Poland. Energoconnect, the Russian-Belarusian joint venture mentioned above, was established in order to deal with the export of Belarusian electricity and the re-export of Russian electricity via cross-border interconnections. From Minsk's point of view, the modernisation and expansion of the interconnection with Poland between Ros and Narew is a priority project in this respect. Several years ago, the Belarusian leadership struck a deal with Polish businessman Jan Kulczyk to carry out this investment. Kulczyk, however, withdrew in early 2011 (while also scrapping his plans to build a coal-fired power plant in the Hrodna Province). In view of Kulczyk's withdrawal and the awful condition Belarus-EU relations are in as well as the bilateral relations between Warsaw and Minsk, the implementation of the project does not seem feasible at this stage.

## The interests of Russia

Russia's strategic objective vis-à-vis Belarus in the domain of nuclear energy is primarily to block the implementation of any nuclear power plant projects by third parties (Western or Asian companies) which could potentially reduce Belarus's energy dependence on Russia.

Other strategic objectives include maintaining and, if possible, extending Belarus's reliance on Russia in the energy sphere; establishing Russian control over Belarus's emerging nuclear sector and the country's electricity grids, as well as controls over electricity exports from Belarus (in order to create sources of revenue for Russian companies but also to acquire an instrument to influence Belarus politically).

Those objectives with regard to Belarus are part of Russia's wider strategy for the nuclear sectors in the CIS area and Central Europe. In the CIS area, Russia's strategic objective is to consolidate, under Russian control, the nuclear sectors of those countries that already have them (Ukraine and Kazakhstan) or that may develop them (Belarus).

In Central Europe, Russia's strategic objective is to keep and, if possible, increase its dominant position in the nuclear sectors, including through the construction of nuclear power plants and the provision of nuclear fuel. Expansion into the domain of exports of electricity generated in nuclear power plants in Russia and those built by Russia abroad is a relatively new objective in the region. In this context, Russia's decision to build nuclear power plants in Belarus and in the Kaliningrad Oblast appears to be designed to obstruct Lithuania's competitive project, the nuclear power plant in Visaginas.

## Future prospects

**Construction of the nuclear power plant will further increase Belarus's already significant energy dependence on Russia. The agreements concluded to date suggest that the Russian side has in fact acquired direct control of the export of electricity from Belarus and indirect control of the operation of the entire electricity system of Belarus.** Moreover, since the project is to be financed solely from Russian loans, it will considerably increase Belarus's public debt (which currently already exceeds 20% of GDP, while total foreign debt amounts to as much as 80% of GDP). This will strengthen Russia's control of Belarus, including in the political sphere.

**The launch of a nuclear power plant will benefit the Belarusian economy.** It will ultimately reduce the country's unprecedentedly high share of gas in electricity generation, which should drive down the operating costs of Belarus's energy-intensive industry. The investment will also have a positive impact on the environment.

**From Russia's point of view, the implementation of a nuclear power plant project in Astravyets is technically and financially feasible at this stage, and is desirable in view of the objectives of Russia's energy policy mentioned above.** The fact that the plant will be located close to the Lithuanian border, along with its high capacity – which exceeds Belarus's projected needs – suggest that the investment will be export-oriented. However, the speed of construction work and the scale of the project will depend on the status and scope of the implementation of the nuclear power plant in Visaginas, Lithuania (the two projects are in part competitive) and, more broadly, on the evolution of the energy market in the region (electricity supply and demand), the current shape of Russian-Belarusian relations (where potential for conflict still exists) and the economic situation in Russia.



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