### About Belene nuclear power plant

The Belene nuclear power plant (NPP) is planned to be sited at the bank of the Danube River, which forms the border between Bulgaria and Romania. Technical design and construction works first started in the nineteen eighties, but the Bulgarian government halted the project in 1990 due to environmental protests and shortage of funds. In a surprise announcement by then Prime Minister and former Bulgarian king Simeon Saxe Coburg Gotha, the government put the Belene project back on the agenda in 2003.

The consortium of Russian Atomstroyexport, Areva and Siemens that won the tender for the design and construction of the NPP offers to build an AES-92 power station, featuring two units of 1000 MW light-water reactors (VVER 1000/B466) with a projected lifetime of 60 years. I&C is to be delivered by Areva and Siemens. The construction contract has a value of approximately 4 Billion Euro within 5 years. The total construction budget is estimated on 10 Billion Euro. Construction works were initially expected to begin in 2005, however, when the contract was signed in January 2008, a new date was set for before the end of that year, but this has again been postponed until 2010. Currently, the project is on hold, although Atomstroyexport is preparing large parts.

**Brief history**

In 1981, the Bulgarian government decided to build six nuclear reactors of the VVER 1000/320 type near the small town of Belene in the North of Bulgaria. Construction started in 1985. When in 1989 the communist government fell, only the base-slab for two reactors, as well as the frame for one and reactor vessels and pressure vessels and piping for two blocks were finished.

In 1990, the Bulgarian Academy of Science published a "White Book" with the conclusion that the Belene NPP project should be dropped for economic, environmental and social reasons. The project was put on hold in 1991 and finally dropped in 1992 for environmental and economic reasons.

Bulgaria at that time ran six nuclear reactors: four of the VVER 440/230 type and two VVER 1000/320 reactors, all situated near the town of Kozloduy. The G7 top in Munich in 1992 called on Bulgaria to close the first generation VVER 440/230 reactors (Kozloduy 1 to 4), as close analysis showed these reactors can never be upgraded to a sufficiently safe level. Bulgaria agreed with this in the EU Accession negotiations, and closed the blocks Kozloduy 1 and 2 in 2002 and later the blocks 3 and 4 in 2006.

On 6 April 2003, Bulgarian Prime Minister Simeon of Saxe-Coburg-Gotha announced that the Belene NPP will be revisited – proposed are two blocks.

After a tendering procedure marred with allegations of corruption, a Russian / French / German consortium consisting of Atomstroyexport, Areva and Siemens signed a 4 Billion Euro contract for the delivery of two VVER 1000/B466 reactors in an AES-92 nuclear power station. The only other AES-92 power plant is under construction in India.

Bulgaria then looked for a strategic investor. It choose in the end RWE, after all other contenders with the exception of Electrabel / GdF Suez had withdrawn their interest because of corruption allegations or the feeling too much risk was involved. RWE was to get 49% of the project, while the state utility NEK was to hold a majority control of 51%.

During the following years, it became increasingly clear that the project is extremely risky, both for environmental reasons (the site has known strong earthquakes, one of which killed 120 people in the nearby town of Svishtov in 1977) and economic reasons. Financial advisor BNP Paribas had to concede in 2008 while it couldn't find any bank willing to lend money for the Bulgarian part of the project. Also bringing NEK together with other strategic energy assets like the Kozloduy nuclear power plant, Bulgargaz, one of the Maritza Iztok coal power plants and the Sofia heating company did not bring sufficient trust in the banking world. Bulgaria then decided to address Russian prime minister Putin on his offer to provide a 3,8 Billion Euro loan for the project.

RWE in the mean time came under heavy criticism in Germany from the public and several key shareholders for its participation in the project. It sought to dilute its risk by trying to find other partners. Electrabel / GdF Suez withdrew its interest in early 2009. In late spring 2009, RWE announced it was talking with InterRAO from Russia, Fortum from Finland and two unnamed Swedish companies for participation in its 49%. It furthermore refused to invest any money into the project as long as there was no clarity about how the Bulgarian 51% was to be financed.

Although construction was planned to start in 2005, to date no construction work has taken place yet, and in most recent studies, Belene has been removed from the "under construction" lists.
What must happen

The Belene NPP is a structurally flawed project located in an earthquake-prone area. Once constructed it will pose a permanent threat to the safety of Bulgaria and Europe. BNP Paribas retreated from its role of facilitating the financing of the reactor. Other banks should refrain from providing money for the construction of the nuclear power plant.

HSBC should withdraw from its role of financial advisor.

Issues

Social issues

Employment

Although the Belene project will create a few hundred low-qualification local jobs, the overwhelming majority of employees will come from outside the region: 2000 qualified Russian workers are expected, plus highly educated employees from the closed units in Kozloduy, and from the Sofia region. This is comparable with the situation in Kozloduy, where the NPP created jobs attracting people from outside the region, while the original population remained largely excluded from these employment opportunities. In addition, it was recently announced that foreign construction workers will need to be recruited from China and Vietnam because of lack of skilled workers in Bulgaria.

Nuclear power risks

When dealing with highly radioactive materials in the context of civil nuclear power generation, there is always a very small, but very real chance of heavy accidents, similar to Chernobyl of 1986. If a similar accident would happen at the Belene NPP, cities that are within the 100 km zone around the reactor, such as Bucharest, Alexandria, Turnu Magurele, Zimmicea, etc. in Romania, and the towns of Svishtov, Pleven, Veliko Tarnovo, Russe, Nikopol and others in Bulgaria would be among the affected areas.

It is expected that the nuclear power plant will have a negative impact on the development of tourism in the area, as well as on the image of the Economical University in nearby Svishtov.

Environmental issues

Apart from the questionable claim that a new NPP is necessary for the region’s energy security, there are a number of specific risks involved in the project.

Seismic risk

According to a study by the Bulgarian Academy of Science from 1990, the NPP is planned in an area with a record of seismic activity. Russian scientists involved in the planning of the power station in the early 1980s demanded Belene to be taken of the list of possible sites. Just 14 km from the planned NPP site 120 people died in an earthquake in 1977 in the town of Svishtov. Despite this past disaster, the Environmental Impact Assessment (EIA) study denies that there is any seismic risk involved, a conclusion taken over by the European Commission in its Euratom art. 41 – 43 Opinion on the power station.

Nuclear waste

Like most other nuclear power-generating countries, Bulgaria has no clear strategy on what to do with the radioactive waste. There is discussion about reprocessing of spent fuel in Russia, but Russia has no capacity yet for VVER 1000/B466 fuel elements. Only under pressure of the European Commission has Bulgaria started in 2008 to work on a plan for final storage of radioactive waste. This plan is still in its infancy.

Nature area

The Belene site is on the edge of a nature reserve, in the centre of a NATURA 2000 area. In addition, current organic agriculture efforts in this rural area may be seriously undermined by the proximity of a nuclear powerplant.

Human rights

Threats

During the years of preparation, several critics of the project received serious threats. Local organic farmer and Nikopol municipal parliament member Albena Simeonova had to live for nine months under bodyguard protection in 2005 because of serious death threats. Two attempts were made on her life in the summer of that year and numerous attempts were undertaken to ruin her organic farm.

Shortly after Christmas 2008, she and Sofia based environmentalist Petko Kovachev received serious warnings that they were endangered because of their opposition against Belene. Simeonova need again several weeks bodyguard protection, while Kovachev fled the capital for the safer countryside.

Local officials often are scared to speak out against the project because of threats and pressure from authorities in Sofia. Authorities in Svishtov were intimidated in 2008 by heavily armed security people from Russian investors into housing for future Russian personnel.

Corruption

During the tendering procedure for the constructor of the project, Canadian based AECL withdrew after allegations of corruption.

Main constructor Atomstroyexport had to promise that 30% of construction contracts would go to Bulgarian subcontractors without tendering. An investigation against breaches of the EU procurement legislation is ongoing.

Gender aspects

Other issues
Flawed Environmental Impact Assessment process

The validity of the EIA is seriously questioned, as it is of low quality and deficient in many respects. First, the environmental impact assessment (EIA) was carried out without knowing which type of reactors would be selected for the planned NPP. Next, the EIA does not address properly, or fails to address altogether, issues related to seismic risk, heavy accidents, terrorist threats and long-term management of spent fuel and other nuclear wastes, nor does it consider any alternative scenarios.

In addition, during the EIA process, public concerns were not properly taken into account; with the exception of Romania, the procedure was not carried out in surrounding countries as prescribed under the Espoo Convention; and the EIA hearings were strongly manipulated.

Reactor type

The new reactor type (VVER 1000/B466) is claimed to be a third-generation NPP. It has, however, so far not been licensed in Europe. Only one AES-92 power station, with different reactors, is currently under construction in India and there is no practical experience with it yet.

Terrorist threat

Every nuclear power facility is a possible terrorist target. Terrorist attacks could result in relatively small radioactive releases that would disrupt life in the vicinity of Belene: Svishtov, Nikopol, Zimmnicea and Turnu Magurele. However, a successful terrorist attempt can also lead to a large accident comparable to the Chernobyl disaster.

Governance

Updates

Amount spent on clearing Belene site

Jan 24 2013

In January 2013, we learnt in the Bulgarian press that a total of 109 million euros were paid for the clearing of the Belene NPP construction site.

Official cancellation of the project by the bulgarian government

Mar 28 2012

The Bulgarian government announced officially on March 28th, 2012 that the Belene nuclear power plant project was officially cancelled. This official announcement come after 10 years of fight and more than 25 years of history for one of the oldest and most controversial nuclear dodgy deals in Europe.

Belene project will not proceed

Mar 28 2012

Per Bulgaria’s Deputy Finance Minister Vladislav Goranov, the Belene nuclear power plant will not be constructed. A natural gas power plant will be built in its place instead. Read more here.
Rumours of Siemens entering the project as strategic investor have so far not been substantiated, though neither denied by Siemens.

The proposal, which is rumoured to be around 8 Billion Euro. The Bulgarian government is not willing to accept more than 5.5 Billion Euro.

In November 2010, Bulgaria chose HSBC as financial adviser to find a new financial model. This happened a few days after Russia made a new cost estimate for the Belene project. Greenpeace filed a complaint for illegal state aid to the European Commission, which is currently under investigation.

In 2008, the German utility RWE was chosen as strategic investor with a foreseen stake of 49%. After heavy international public criticism during most of 2008, the company started to look for partners in order to dilute the risk. Electrabel / GdF Suez withdrew its interest in February 2009. Since then, RWE became the target of a strong public campaign to withdraw its part, culminating in open critique from some of its large shareholders during the 2009 AGM. The company announced not to invest a single Euro into the project before there was full clarity about the financing of the Bulgarian 51%, it would be promised full control over the quality of the project, commission new seismic studies and start talks with other possible partners to spread the risk. These included InterRAO from Russia, Fortum from Finland and two unnamed Swedish companies. However, Fortum and Vattenfall denied all interest. On 28 October 2009, RWE withdrew from Belene.

With that, Belene is again 100% in the hands of Bulgarian utility NEK.

Since around 2007, the right of centre Blue Coalition opposition party in Bulgaria has taken a critical stance towards the Belene project. The party winning the 2009 elections, right of centre GERB, announced it will not put any government finance into Belene.

After the elections, the new government did a full investigation into the way the Belene project was managed. It found out that the budget of 4 Billion Euro in compensation. The government put the project on hold, pending a complete reorganisation and new feasibility study, which is expected to be finished before the end of 2010.

In the meantime, Russian Atomstroyexport and the Russian government started an offensive to save the project - their first new nuclear project in the EU. It offers to finance the first two years of construction - now estimated on around 4 Billion Euro - which by lack of government guarantee (illegal under EU law and too risky for the Bulgarian budget) would have to be guaranteed by NEK.

The Bulgarian government announced further it is willing to lower Bulgarian participation in the project to as low as 20%. It is unclear, however, whether Moscow would be promised full control over the project, commission new seismic studies and start talks with other possible partners to spread the risk.

The Bulgarian government also poured 300 Million Bulgarian Leva extra capital in the Bulgarian Energy Holding with the explicit aim of being used for the Belene project. Greenpeace filed a complaint for illegal state aid to the European Commission, which is currently under investigation.

In 2007, BNP Paribas provided a small loan to finance the project’s initial development. Eventually, however, BNP Paribas recalled the loan and also ended its involvement. This was shortly after the project’s sole foreign investor, the energy company RWE, took the decision to drop out of Belene in 2009.

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NEK plans to seek financing to cover its 51% participation in the project's estimated total costs of between 6 and 9 billion Euro from leading global investment banks, the Euratom loan facility and the European Investment Bank. The Bulgarian government has reserved funds in the budget for a 600 million loan guarantee for the latter loans.

Deutsche Bank and UniCredit (through its daughters HypoVereinsBank in Germany and Zivnostenska Banka in Czech Republic) were quoted as interested in financing the deal. However, faced with international protests in front of UniCredit branches throughout Europe and planned protests outside Deutsche Bank and HypoVereinsbank in Germany, both UniCredit and Deutsche Bank declared they were no longer interested in the deal (October 2006), Deutsche Bank without giving reasons, UniCredit citing economic considerations. Other banks that withdrew initial interest after being informed about involved risks by environmental NGOs include: Bayerische Landesbank, Commerzbank, KBC, Societe Generale, Lehman Brothers, Merill Lynch, Citibank, Morgan Chase and Credit Suisse – First Boston.

In May 2007, the French bank BNP Paribas won the first tender for Belene NPP financing, causing a huge outcry of protest among environmental NGOs. The 250 million Euro syndicated loan is provided by BNP Paribas and other undisclosed banks to serve as bridge credit to cover the engineering, equipment delivery and construction works costs for the Belene NPP project in 2007 and was extended to 2008.

In June 2008, BNP Paribas was announced as the leading structuring bank to organise the financial structuring of the main phase of the implementation of the Belene NPP project. BNP Paribas has, however, stressed it will not be involved in further financing itself.

In Spring 2009, it became clear that BNP Paribas was not able to find financing for the project. In the end of 2009, BNP Paribas ended its mandate without being successful.

Earlier that year, BNP Paribas called short the loan of 250 Million Euro, because NEK was not able any longer to fulfil the loan criteria.

In 2010, Russia increased pressure to save the project after German strategic investor (49%) RWE left it in October 2009.

After a long and steadily postponed tender procedure, HSBC was chosen in November 2010 as new financial advisor to do what BNP Paribas was unable to do.

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