

Russian and Bulgarian companies have signed a contract to extend the operating life of unit 6 of the Kozloduy nuclear power plant to 60 years. The agreement – between Kozloduy Nuclear Power Plant plc and a consortium of Russia’s Rosatom Services and Bulgaria’s Risk Engineering Ltd – was signed during a meeting of the Bulgarian-Russian intergovernmental commission on economic and scientific-technical cooperation in Sofia yesterday, by Evgeny Sal’kov, general director of Rosatom Services, and Dimitar Angelov, executive director of Kozloduy NPP plc.

In a statement yesterday, Rosatom said the contracted work includes an assessment of the “technical condition and justification of the residual service life” of the reactor equipment, the thermal and mechanical equipment of the first and second circuits, the diesel generator power units, and other equipment, buildings and structures of Kozloduy 6. The work is expected to take 30 months.

Kozloduy NPP plc manages Bulgaria’s sole nuclear power plant, which covers more than one-third of the country’s total annual electricity generation. Rosatom Services is a subsidiary of Russia state nuclear corporation Rosatom.

The Rosatom statement quoted Sal’kov as saying that Russia and Bulgaria has cooperated in the nuclear sector for more than 40 years. “We are delighted that our cooperation is not only successfully being continued, but is expanding in promising and important projects such as the extension of the operation and modernization of nuclear power plants,” he said. The Kozloduy site is home to two operating Russian-designed VVER-1000 pressurised water reactors, Kozloduy 5 and 6, as well as four shut-down VVER-440s. The units are currently licensed to 2017 and 2019.

The plan to extend the operating lives of these reactors was initiated in April 2012 when Kozloduy NPP plc signed a contract with a consortium of Rosenergoatom and EDF. Early in 2013 a further contract was signed with Rosatom Services to upgrade the turbine generator of unit 6, taking it to 1100 MWe by installing a new stator, with work completed in November 2015.

In October 2014 an agreement for refurbishment and life extension of unit 5 was signed with the three companies. A €24.7 million agreement with Rosatom in October 2015 was for upgrading the turbine generator of unit 5 by May 2018. It involves Rosenergoatom, Rosatom Services and EDF. Another agreement for unit 6 is expected by the end of 2015. The government is committed to their life extension and uprate to 104% of original capacity. Proposals for a seventh and eighth unit at Kozloduy date back to the 1980s, when possible sites were reserved. Finally, in November 2013, Bulgaria’s government gave the go-ahead for a new unit at Kozloduy and announced it would begin exclusive talks with Westinghouse

on building an AP1000 reactor on the site.

In April last year, Westinghouse Electric Company and the Bulgarian government announced they were in talks to set a structure and timeline for their agreement to build a seventh reactor at the Kozloduy plant. The discussions follow the expiry on 31 March of a shareholder agreement the US-based company signed with the previous government in August 2014. Under that agreement, Westinghouse would be responsible for providing all of the plant equipment, design, engineering and fuel for the new unit.