

Nuclearelectrica has signed a memorandum of understanding (MOU) with China General Nuclear (CGN) for the development, construction, operation and decommissioning of units 3 and 4 of the Cernavoda nuclear power plant. The Romanian national nuclear company said a joint venture project company is to be established, with CGN owning at least 51% of the share capital.

That company will oversee construction of the units, which will be 700 MWe Candu 6 reactors. Two Candu units already operate at the Cernavoda site.

Romania and China signed a letter of intent in November 2013 during a visit to Bucharest by Chinese premier Li Keqiang. During his visit, the two countries signed numerous bilateral agreements, including an MOU on the peaceful uses of nuclear energy. The Romanian government and Nuclearelectrica's shareholders approved the MOU on 2 September and 22 October, respectively.

Nuclearelectrica and CGN said their MOU moves the project closer to the organization of an investor selection procedure and that it also establishes the direction of future cooperation between the two companies. They will subsequently start the negotiation process covering detailed terms of establishments of the new project company.

Signing of the MOU "represents a concrete step forward" in the establishment of the major coordinates of the project, Nuclearelectrica CEO Daniela Lulache said. These include an investment agreement, the articles of incorporation of the new project company, the structuring of the project's financing and the contracting of engineering, procurement and construction services.

According to the Nuclearelectrica statement, CGN CEO Zhang Qibo said the signing of the MOU represents a major milestone in CGN's pursuit of collaboration with its Romanian partners.

Cernavoda is home to two operating Candu 6 pressurized heavy water reactors (PHWRs) supplied by Candu Energy's predecessor, Atomic Energy of Canada Ltd (AECL), and built by a Canadian-Italian consortium of AECL and Ansaldo. Unit 1 started up in 1996, but work was suspended on a further four units in 1991. Unit 2 was subsequently completed and has been in operation since 2007. In July 2014, China Nuclear Power Engineering Co (CNPEC) signed a "binding and exclusive" cooperation agreement with Candu Energy for the construction of two more reactors at the Cernavoda nuclear power plant in Romania. CGN is CNPEC's parent company.

"Against the backdrop of China's widening cooperation with Central and Eastern Europe (CEE), the introduction of China's funding and excellent engineering and operation management experience - with 15 reactors in operation and 11 reactors under construction

- serves as testimony to the ever deepening ties between China and CEE in general, and China and Romania in particular," Qibo said. "CGN is ready to work closely with Romanian, Canadian and European partners to move the Cernavoda units 3 & 4 project forward as a strategic partner, and in a spirit of mutual benefits and win-win cooperation - now and into the future."

The new units will have an operating life of 30 years with the possibility of extension by an additional 25 years, Nuclearelectrica said. The doubling of the production capacity of the Cernavoda plant through the construction of two new units "represents a major competitive advantage in the medium and long term as Romania owns the entire nuclear fuel cycle", it said.

By doubling Romania's nuclear power production capacity, the emission of about 12 million tonnes of carbon dioxide each year will be avoided, it said. From the energy efficiency perspective, the energy produced by a single nuclear fuel assembly, about 1115 Mwe, is equal to the energy produced by 470 tonnes of conventional fuel, 2220 tonnes of brown coal, 317 tonnes of crude oil and 363,000 cubic metres of natural gas, it said.

source: world-nuclear-news.org