



## Memorandum

To Euratom

From BTC/Sabina Kristensson SK  
 Telephone +46 21 34 79 48  
 E-mail kristesl@westinghouse.com

Date August 15, 2016  
 Order No FV-15-4037

### ESSANUF - D8.10 Publishable summary of the project

In the EU around 130 nuclear power reactors produce some 30% of all electricity consumed. Of these, 14 are the Russian-made VVER-440 design, located in Finland, Hungary, Slovakia and the Czech Republic. In addition, Ukraine has two VVER-440 units. Today all VVER-440 utilities rely on a single, non-EU, source of nuclear fuel supply.

The EU's energy security strategy aims to reduce this vulnerability by ensuring diversity of supply and awarded the ESSANUF (European Supply of Safe Nuclear Fuel) project funding. The project was launched in September, 2015 with a planned duration is 26 months. The project has participants from nine different organizations, with a variety of competences in the nuclear field, in a consortium and is coordinated by Westinghouse Electric Sweden AB.

The overall aim of the project was to create greater security of energy supply and contribute to the security of supply of nuclear fuel for Russian designed pressurized water reactors (VVER) operating in the EU and Ukraine by diversification of fuel sources and in full compliance with nuclear safety standards.

The ESSANUF project has created a multi-national network of expertise and experience, which has enhanced the previously supplied VVER-440 fuel design (to Loviisa nuclear power plant in Finland 2001-2007) and developed the necessary methods and methodology to position a European supplier for future fuel deliveries. Plans have also been developed for the testing of the new design, for the reestablishment of the manufacturing equipment and processes, as well as the necessary supply chain.

The project has strengthened the competitiveness of a European Union nuclear fuel provider. The consortium has created a solid base for diversification of fuel supply to VVER-440 reactors in the EU and in Ukraine. The new fuel meets the European market's need of state-of-the-art and reliable VVER reactor fuel.

For several of the partners involved in the project there is a great commercial potential in meeting the European market needs for diversification, which will contribute to growth within the EU, creating both profit and new jobs. In addition to diversification, the project has enhanced the



This project has received funding from the *Euratom research and training programme 2014-2018* under grant agreement No 671546.

**Copy to:** VUJE, NRI, LUT, NNL, NucleoCon, NSC KIPT, ENUSA, JRC



communication and relationship between organizations in the consortium and nuclear operators and regulators of the different countries. Information exchange and open discussions between the different parties has been encouraged by several workshops.