

Explanation of the continuation of the procedure for implementing the Espoo Convention provisions to the construction of power units No. 3 and No. 4 of Khmelnytsky NPP

The construction of power units No. 3 and No. 4 of Khmelnytsky NPP has been carried out in accordance with and on the basis of the following legislative documents:

- Energy Strategy of Ukraine for the period up to 2030, approved by the CMU's ordinance No. 1071 on 07.07.2013;
- Decree No.118 "On Priority Measures for Construction of Units №3 and №4 of Khmelnytsky NPP" approved by the Cabinet of Ministers of Ukraine on 18.02.2009;
- Ordinance No.498-r "On approval of the feasibility study for construction of power units No.3 and No.4 of Khmelnytsky nuclear power plant" approved by the Cabinet of Ministers of Ukraine on 04.07.2012;

In 2010 the Ministry of Energy and Coal Industry of Ukraine sent a "Notice about the proposed activity to be sent to an affected Party in accordance with Article 3 of the Convention" to the Ministry of Ecology and Natural Resources of Ukraine as the National Coordinator for implementation of the Convention on Environmental Impact Assessment in the Transboundary Context (Espoo Convention).

Between 2011 and 2013, reasoned and explicit responses were given to all the questions, considerations and comments received from the representatives of neighboring countries (Poland, Belarus, Hungary, Moldova, Slovakia, and Austria).

In August - September 2013, three expert consultations were held with representatives of the Polish, Austrian and Hungarian state organizations to address the implementation of Article 5 of the Espoo Convention in connection with the construction of Khmelnytsky NPP units No. 3 and No. 4. In addition, the consultations with the Republic of Moldova, Slovakia, Romania and Belarus were held taking a form of an exchange of letters. Based on the outcomes of consultations, protocols were drawn up confirming the sufficiency of information provided.

The Report on informing the neighboring states about a possible transboundary impact of the construction of Khmelnytsky NPP units No. 3 and No. 4 on meeting the Espoo Convention requirements was developed to properly inform the neighboring countries and the public about the construction of KhNPP units 3 and 4. That Report was posted on the Company's website, thereby completing the procedure for informing neighboring countries, as required by the Espoo Convention.

In line with Law of Ukraine No. 696-VIII, dated September 16, 2015, "On termination of the Agreement between the Cabinet of Ministers of Ukraine and the Government of the Russian Federation on cooperation in the construction of power units No. 3 and No. 4 of of Khmelnytsky NPP", the Scientific and Technical Board of SE NNEGC Energoatom decided on replacing the vendor of reactor facility equipment. Later on, Škoda JS a.s., European supplier, was introduced as the vendor of VVER-1000 reactor facility. Škoda JS a.s. that manufactures, under the license, the same reactor facility, which was subject to previous cross-border consultations, conforms to

the most recent technical codes, standards and regulations applicable in Ukraine, as well as the IAEA recommendations, and provides compliance with the advanced safety requirements for nuclear power plants.

Following the decision on substitution of the reactor facility vendor and as a result of several safety and reliability improvements implemented, as well as other activities resulted from the stress tests, which were conducted in the aftermath of events at Fukushima-1 nuclear power plant, and moreover, bearing in mind the experience in developing such activities for running nuclear power plants and also the need for implementing the provisions of regulatory and legal acts, ammended or put into effect after approval of the feasibility study, as well as requirements of the IAEA safety standards, a need eventually emerged to revise and properly update the Feasibility Study materials.

Changes in performance indicators, as shown in the updated Feasibility Study

Performance Indicator	Measurement Unit	FS-2011	FS-2016
Design electric capacity of the enterprise	MW(e)	2094	2178
On-grid time ¹	hours /years (h/y)	7185	7450
Design lifetime of power units	years	50	50
Reactor	type	VVER-1000 (JSC Atomstroyexport)	VVER-1000 (Škoda JS a.s. Fabrication)
Turbine	type	based on K-1000-60/1500-2M	based on K- 1000-60/1500- 2M
Generator	type	TVV-1000-4UZ	TVV-1000-4UZ
Annual output	billions KW·h	15,044	16,226
Annual electricity supply to consumers	billions KW·h	14,300	15,420

¹ On-grid time: the total clock hours/years during which the unit operated with at least one main generator connected to the grid [Source: IAEA TRS 428] (translator's note)

Construction period	months	72	72
Area of the site	ha	14,8	14,8
Built-up area	ha	4,5	4,5

Technical solutions, which are not related to these modifications, do not entail any changes to the conclusions and performance indicators given in the feasibility study previously approved for all facilities and buildings of the KhNPP units 3 and 4 complex.

The table below shows changes in the scope of materials of the updated EIA (environmental impact assessment) volumes.

Description of Sections	Modifications
Rationale for the Environmental Impact Assessment	Sections of these volumes have been changed in so far as such sections relate to the references to statutory and regulatory acts and standards, which were amended or put into force after approval of the feasibility study. Statutory and regulatory acts applicable to the EIA confirm the results of the EIA provided in the previously approved feasibility study.
General specifications of power units	
Predictive estimates of the radiation impact on agro-ecosystems and population under normal operating conditions and accidents	
Assessment of an impact of power units on the anthropogenic environment	
Assessment of consequences of transboundary transfers under normal and emergency modes	
Assessment of impacts of power units on the social environment	
Comprehensive measures aimed at securing the statutory environmental condition and safety	
Statement on environmental implications of the operation of power units	
Materials for public hearings and a consultative referendum	
Climate and microclimate	
Geological environment of the monitoring area, the point, the site and a satellite town of the nuclear power plant	
Physiographic features of the area and the site where nuclear power units are located	
Ground waters	

Soils	
Air environment	
Surface waters	
Flora and fauna, natural reserves in the monitoring area	
Assessment of environmental impacts from the construction of power units	

This information is provided for the purpose of informing about the consultation procedure being continued in accordance with the Espoo Convention provisions.

SE NNEGC Energoatom as the operating organization, is fully aware of the importance of these on-going activities and gives high priority to human security and safety, as well as preservation of the natural environment, above all else. The Company believes that production of electricity under present-day conditions should be safe and environmentally friendly and intends to further keep on covering far and wide the progress under the construction project of Khmelniisky NPP units No. 3 and No. 4.