



**Current report in compliance with Law no. 24/2017 and Regulation no. 5/2018**  
**Reporting date: 21.07.2022**  
**Name of the issuing entity: Societatea Nationala NUCLEARELECTRICA S.A.**  
**Registered office: Strada Polona nr. 65, Sector 1, Bucuresti**  
**Phone/fax number: 021-203.82.00 / 021 – 316.94.00**  
**Sole Registration Code with the Trade Register Office: 10874881**  
**Order number: J40/7403/1998**  
**Subscribed and paid share capital: 3,016,438,940 Lei**  
**Regulated market on which the issued securities are traded: Bucharest Stock Exchange**

**To: Bucharest Stock Exchange  
 Financial Supervisory Authority**

**Important event to be reported: Nuclearelectrica announces the advancement of Unit 1 Refurbishment Project: signing the first contract with Candu Energy, Member of the SNC-Lavalin Group, in phase II of the project.**

**Nuclearelectrica announces the advancement of the Unit 1 Refurbishment Project, by signing the first contract with Candu Energy, a member of the SNC-Lavalin Group and the Authority for Designing Unit 1 and OEM (Original Equipment Manufacturer) of the CANDU technology.**

Within the contract, Candu Energy will provide engineering services for the development of the technical documentation for the procurement of long-lead reactor components, which will be replaced during Refurbishment of Unit 1, within the project referred to as “reactor retubing” (Replacement of Fuel Channels, Calandria Tubes and Feeders - ICCTCF); Also, Candu Energy will offer engineering services for the assessment of the conditions of the set of specialized tools which will be used for the replacement of the reactor components and the developing of the documentation for the procurement of the components which need to be replaced/modified.

CANDU reactors have an initial lifecycle of 30 years, which can be extended by another 30 years, following a refurbishment process, and this is what Nuclearelectrica is currently doing for Unit 1, which was put into commercial operation in 1996.

According to the report of the International Energy Agency (IEA)<sup>1</sup>, in collaboration with the Nuclear Energy Agency (OECD-NEA), prepared in 2020 with regard to the costs of electricity, the refurbishment of nuclear units has the lowest cost of electricity among all sources of energy -

<sup>1</sup> Projected Costs of Generating Electricity 2020 Report by the International Energy Agency and the OECD Nuclear Energy Agency, <https://www.iea.org/reports/projected-costs-of-generating-electricity-2020>

on average 32 USD/MWh (as compared to 50 USD/MWh for wind energy; 56 USD/MWh for solar panels; 91 USD/MWh for coal-based plants). The cost of energy generated by new nuclear capacities, of a new size, is 69 USD/MWh, according to the same report.

The refurbishment of Unit 1 of the Cernavoda NPP (CNE) is one of the main investment projects implemented by Societatea Nationala Nuclearelectrica S.A. (“SNN”), and was approved by the SNN shareholders through Resolution No. 27/23 December 2013 of the Extraordinary General Meeting of Shareholders of SNN.

**The Unit 1 Refurbishment Project, initiated in 2017, is implemented in three stages, in accordance with the experience and international practice in the field.**

**Phase I of the Refurbishment Project** was initiated following Resolution no. 9/28.09.2017, by which SNN shareholders approved Phase I of the Cernavoda NPP Unit 1 Refurbishment Strategy. **Phase I, carried out in the period 2017-2022**, consisted in: Demonstrating the capability of the current components of the reactor of Unit 1 to operate for more than 210,000 hours at the rated power, until at least the end of 2026, finalizing the purpose of the works in the Refurbishment Project, as well as demonstrating the feasibility of the Refurbishment Project, a stage that was completed in February 2022 with the approval by GMS of the Feasibility Study and of the investment decision.

**Phase II of the Unit 1 Refurbishment Project** was initiated following the approval, in the General Meeting of Shareholders held on 23 February 2022, of the investment decision within the Cernavoda NPP Unit 1 Refurbishment project. The estimated cost of the investment is 1.85 billion EUR. **Phase II will be carried out in the period 2022-2026** and considers the following main activities: Providing the financial resources for carrying out the Unit 1 Refurbishment Project; Negotiating and granting the Engineering, Procurement and Construction (EPC) Contracts; Procuring equipment with a long manufacturing cycle; Assessing, Preparing and Scheduling the Activities to be carried out; Obtaining the Opinion of the European Commission - Article 41 of the Euratom Treaty; Obtaining all the authorizations and approvals necessary to start the project, etc.

**Phase III, which will be carried out in the period 2027-2029**, starts with the shutdown of Unit 1 and consists of the actual performance of the works in the Unit 1 Refurbishment Project within the facilities of the unit, and its recommissioning, in order to be commercially operated for another lifecycle of 30 years, after the year 2029.

*“We are proud to sign the first contract with Candu Energy which advances the NPP Cernavoda Unit 1 Refurbishment Project. Romania needs new nuclear capacities for producing clean, stable and affordable energy, as a solution for achieving the energy safety and protection of consumers. We have a long-term mission of generating clean energy at excellence standards, and the Refurbishment of Unit 1 will provide Romania with another 30 years of baseload clean energy.*”

*At the same time, considering the complexity and strategic significance of the project, we have employed as of 2021 more than 100 new coworkers, who will be part of the organizational structure of the project and who benefit from specialization in accordance with nuclear standards. Some of the new employees will undergo on-the-job training at nuclear power stations in Canada, which have already had the experience of refurbishing nuclear units”, said Cosmin Ghiță, CEO of Nuclearelectrica SA.*

*“Cernavoda NPP has more than 25 years of expertise in nuclear operation at the highest safety standards. We have highly-skilled personnel, and the Unit 1 refurbishment project capitalizes on this expertise. The refurbishment of a nuclear unit is a very complex project, similar to the construction of new nuclear units, a project for which the refurbishment team of Cernavoda NPP is well-prepared. We are delighted to initiate the cooperation with Candu Energy for this strategic project”, stated Sorin Ghelbereu, Strategic Project Manager of NPP (CNE) Cernavoda.*

*“We are pleased to continue our decade-plus relationship with SNN and Romania, as they prepare their CANDU reactors to serve future generations as dependably as they’ve served generations past,” said Joe St. Julian, President, Nuclear, SNC-Lavalin. “As the steward and original equipment manufacturer of CANDU technology, no one knows this reactor, or how to execute a successful retubing of it, better than we do. Being purpose-driven to engineer a better future for our planet and its people, we are proud that our CANDU technology will continue contributing to the prosperity of Romania and its people; providing emissions-free, baseload electricity its economy can depend on in all weather conditions, and in all geopolitical environments, for the next 30 years.”*

Benefits of the Unit 1 Refurbishment project: another 30 years of operation as of 2029; around 5.5 million MWh of net clean energy delivered annually in SEN (National Energy System), at the lowest cost among all energy sources; Contributions to the economy; More than 5 million tons of CO2 avoided on an annual basis.

Unit 1 of NPP (CNE) Cernavoda, with an installed power of 700 MW, was commissioned in 1996 and has delivered, up to the present, 127 million MWh, representing 9% of national consumption over a period of 25 years. Also, Unit 1 has prevented the release into the atmosphere of 125 million tons of CO2, representing the equivalent of the emissions generated by all motor cars in Romania over a period of more than 6 years.

**Cosmin Ghita**  
**Chief Executive Officer**