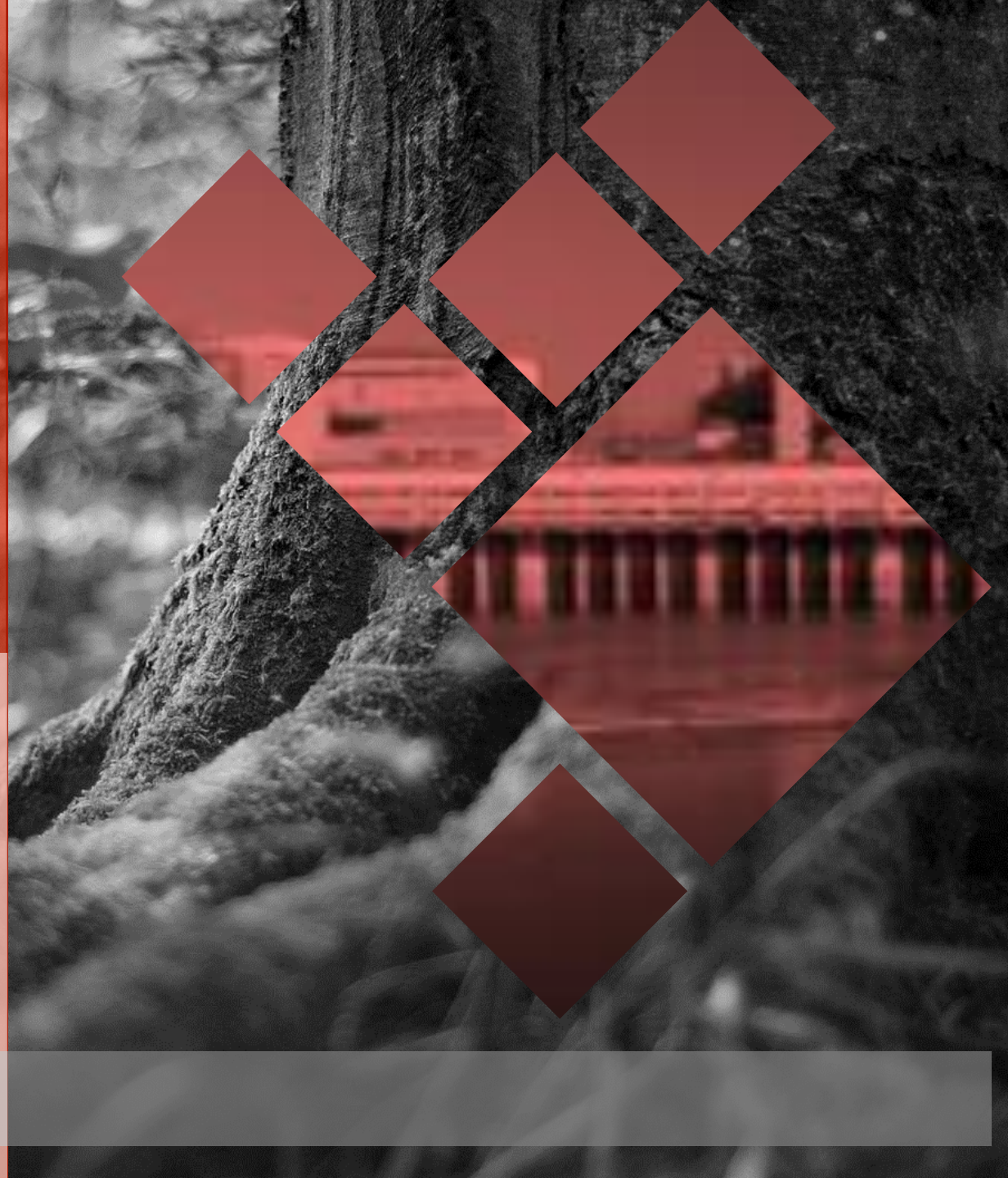
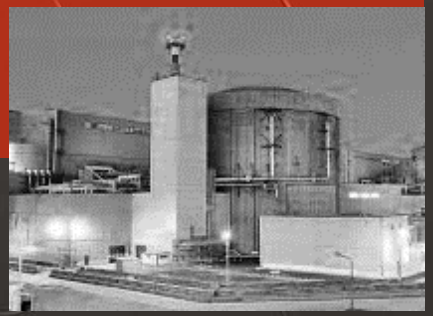
Presentation for investors



NUCLEARELECTRICA

Commitment for excellence.
Action for results.



Our mission

We generate clean energy at standards of excellence

Our vision

We build a sustainable future for tomorrow’s generation

Our values

Professional excellence
Care for employees
Safety and stability
Empathy and responsibility
Sustainable development

Characteristics:

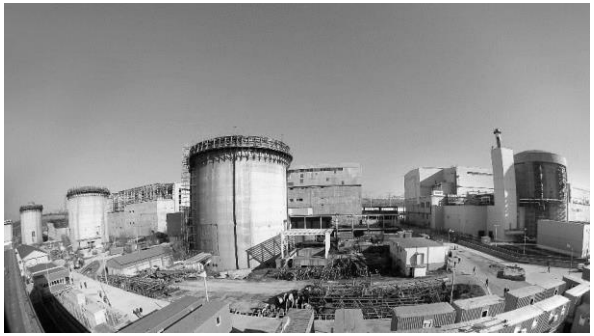
- A high value of the installed capacity factor; at an equal installed capacity factor, a nuclear unit produces twice as much energy as a conventional unit;
- No greenhouse gas emissions
- Low dependency of the price per KW on the variation of uranium prices, due to its small quota in the production cost as compared to other energy producers
- High technical level of the operation personnel,
- Reasonable production costs
- Nuclear power fully complies with the requirements regarding security of supply, sustainable development and competitiveness.

Slogan

Commitment to excellence.
Action for results.

NUCLEARELECTRICA

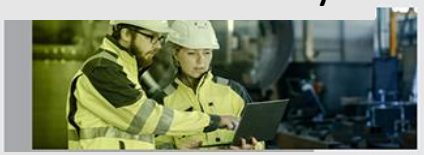
Our Values



Our vision
We build a sustainable future for tomorrow's generation

Our mission
We generate clean energy at standards of excellence

Security and Sustainability



Care for our employees

Professional Excellence

Empathy and Responsibility

Sustainable Development

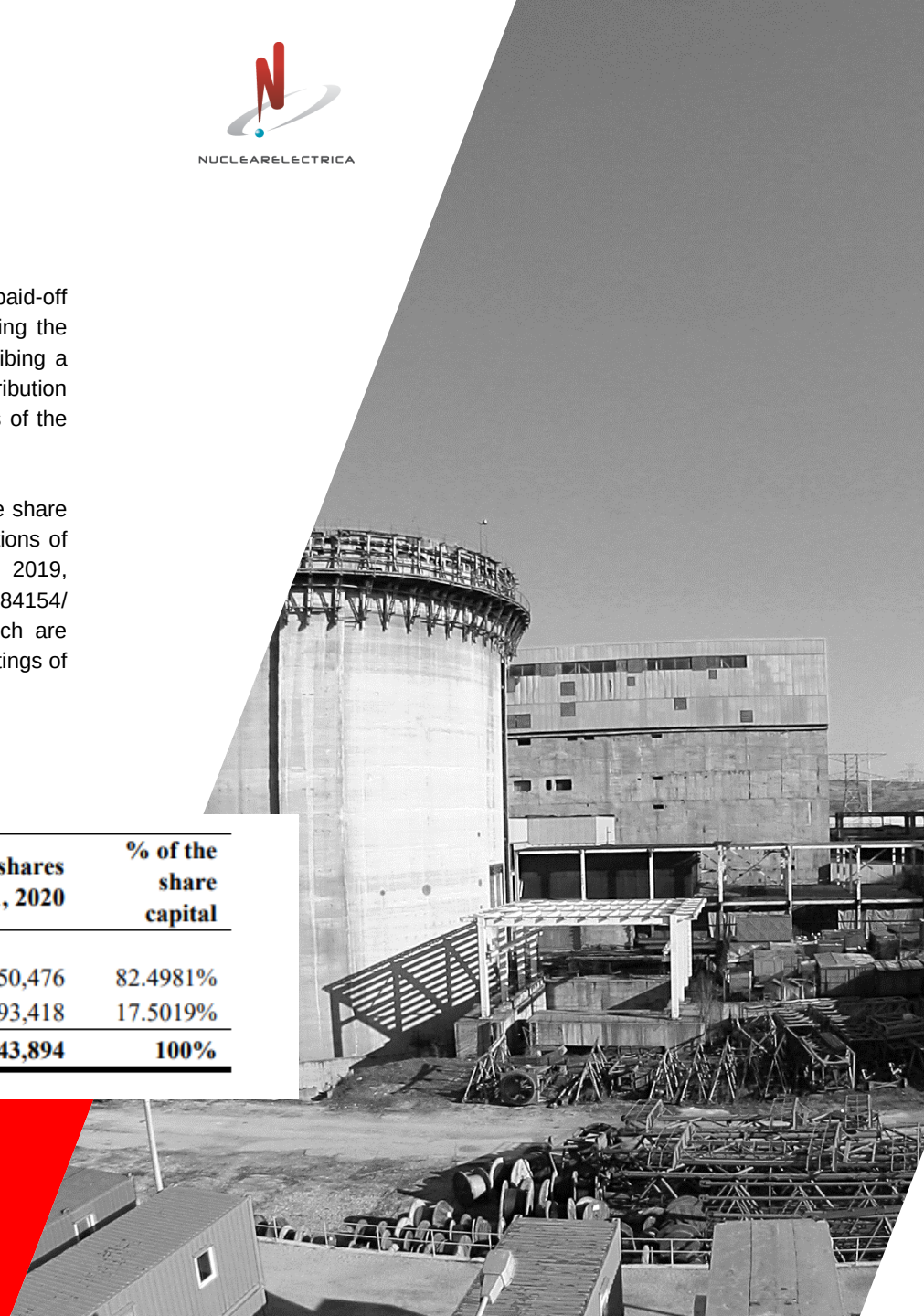
Shareholding structure

As at September 30, 2021 and December 31, 2020, the value of the statutory subscribed and paid-off share capital amounts to RON 3,016,438,940, consisting of 301,643,894 ordinary shares having the nominal value of 10 RON each. The last share capital increase took place in 2020 by subscribing a number of 130,043 new shares, in the amount of RON 1,300,430, representing the in-kind contribution of the Romanian State, represented by the Ministry of Energy and in cash of the shareholders of the Company.

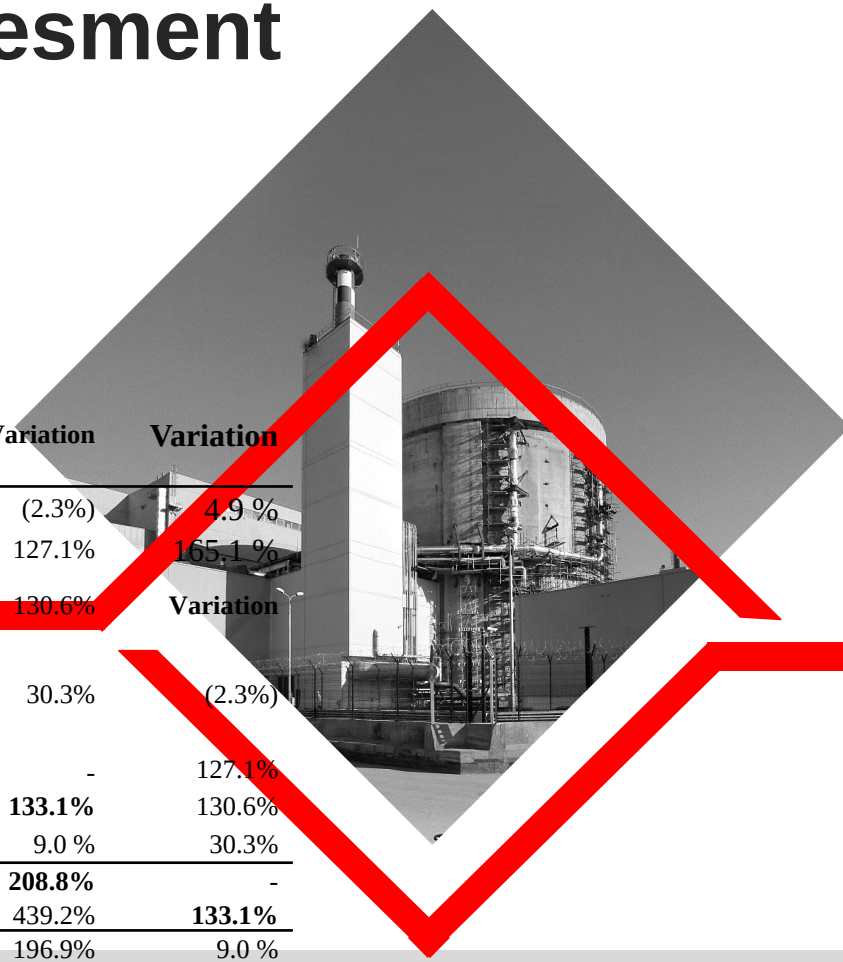
The share capital increase was made based on the Proportional Offer Prospectus related to the share capital increase, approved by the ASF Decision no. 976/August 13th, 2020 and of the Resolutions of the Extraordinary General Meeting no. 2/January 4th, 2019 and no. 12/December 19th, 2019, registered with the National Trade Register Office according to the amended Certificate no. 484154/ September 30th, 2020. Holders of ordinary shares are entitled to receive dividends, as such are declared at certain periods of time, and are entitled to vote on one share during the General Meetings of the Shareholders of the Company.

The shareholding structure as at December 31, 2021 and December 31, 2020 is as follows:

Shareholders	Number of shares December 31, 2021	% of the share capital	Number of shares December 31, 2020	% of the share capital
The Romanian State - Ministry of Energy	248,850,476	82.4981%	248,850,476	82.4981%
Other shareholders	52,793,418	17.5019%	52,793,418	17.5019%
Total	**301,643,894**	**100%**	**301,643,894**	**100%**



Elements of general assesment H1 2022



Indicator [thousand RON]	6-month period that ended on June 30, 2022 (revised)	6-month period ended on June 30, 2021 (revised)	Variation	Variation
Production (GWh)*	4,779	4,890	(2.3%)	4.9 %
Operating revenues, of which:	3,140,335	1,382,537	127.1%	165.1 %
*Revenues from the sale of electric power***	*3.089.082*	*1,339,580*	130.6%	Variation
Operating expenses, less depreciation and amortization and additional income tax	(846.625)	(649,746)	30.3%	(2.3%)
Additional income tax expense	(585.811)	-	-	127.1%
EBITDA	**1.707.899**	**732,791**	**133.1%**	130.6%
Impairment and depreciation	(302.619)	(277,642)	9.0 %	30.3%
EBIT	**1,405,280**	**455,149**	**208.8%**	-
Net financial result	50,293	9,327	439.2%	**133.1%**
Corporate tax expense	(234,781)	(79,083)	196.9%	9.0 %
Net profit	**1,220,792**	**385,393**	**216.8%**	**208.8%**

**Electricity produced and delivered by Cernavoda NPP in the National Energy System.*
***Including revenues from the sale of thermal energy, insignificant in the total revenues.*

439.2%

Net income tax expense	Corporate tax expense	(234,781)	(79,083)	196.9%
Net profit	**Net profit**	**1,220,792**	**385,393**	**216.8%**

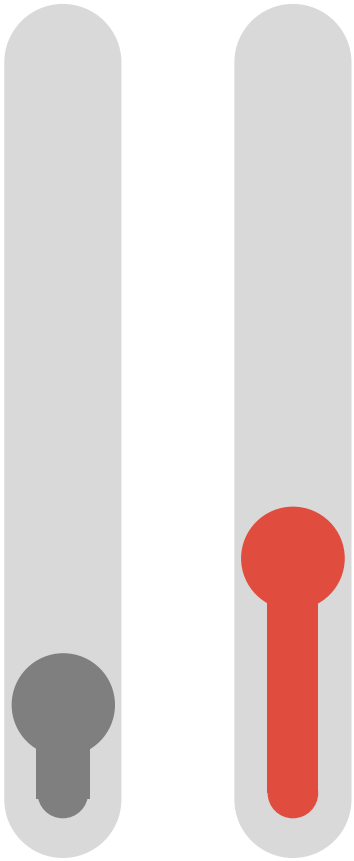
**Electricity produced and delivered by Cernavoda NPP in the National Energy System.*
***Including revenues from the sale of thermal energy, insignificant in the total revenues.*

**Electricity produced and delivered by Cernavoda NPP in the National Energy System.*
***Including revenues from the sale of thermal energy, insignificant in the total revenues.*

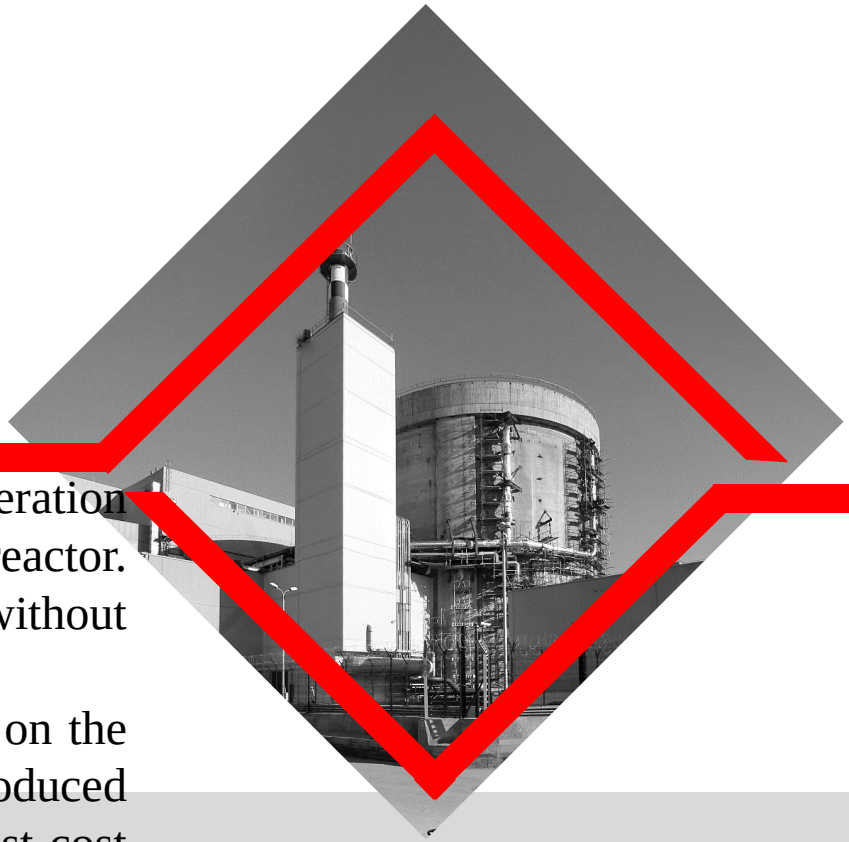
INCOME FROM ELECTRICITY SALES

H1 2022

Sales by types	Quantities in MWh	% of total sales	Average price [Ron/MWh with Tg included]	Revenues from sales [Ron]
Sales on the competitive market (bilateral contracts and PZU and PI contracts), out of which:	5,008,494	99.69%	615.40	3,082,248,250
– Sales under CMBC – EA, CMBC – EA Flex, CMBC-CN, CM – OTC contracts, directly negotiated contracts and supply contracts	4.189.745	83.40%	534.46	2.239.236.541
- Sales on DAM and IDM	818.749	16.30%	1,029.63	843,011,709
PE positive imbalances	15,475	0.31%	754.02	11,668,698
Total sales in the first half-year of 2022	**5.023.969**	**100 %**	**615.83**	**3.093.916.948**



Investment projects
Refurbishment of Unit 1



The refurbishment of Unit 1 means another 30 years of operation after 2029, at less than half the costs of a new nuclear reactor. Concretely, it means another 30 years of clean energy, without CO2 emissions.

In terms of costs, and implicitly of the subsequent impact on the market, a NEA-OECD study confirms that the energy produced by extending the lifecycle of nuclear units incurs the lowest cost of all sources, including renewable sources:

Cost of energy:

from a refurbished nuclear power plant: USD 32/MWh

– from wind sources: USD 50/MWh

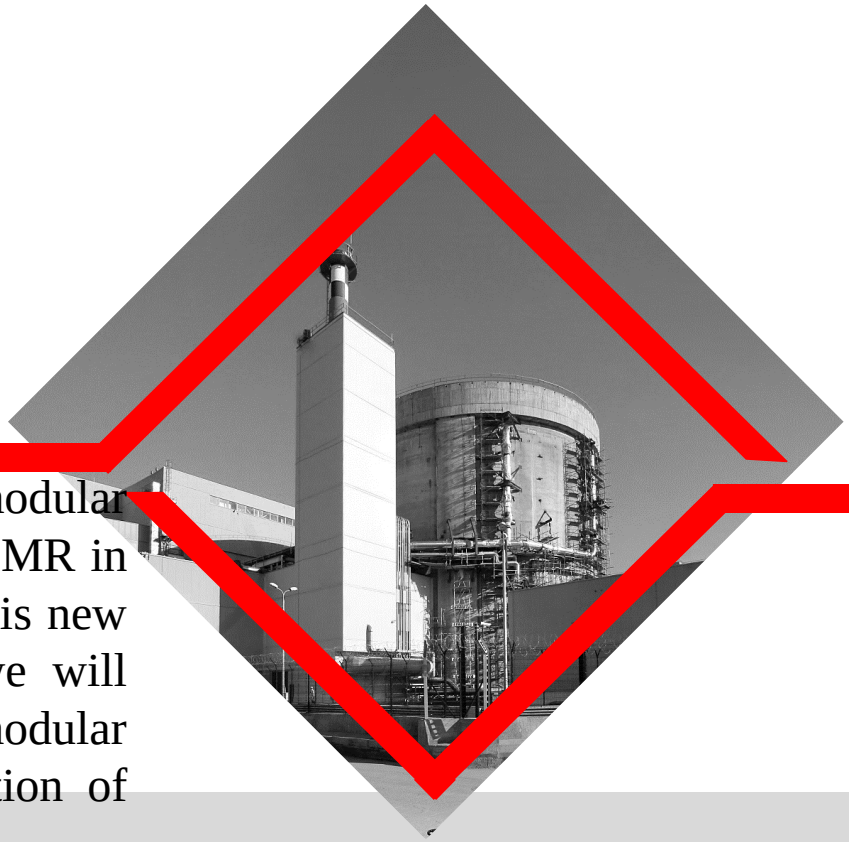
– from solar panel parks: USD 94/MWh

Investment projects
Units 3&4 Project

The project of CANDU Units 3 and 4 is set out in the Energy Strategy of Romania 2019-2030, with perspective of 2050, as well as in the Integrated National Energy and Climate Change Plan, as a pillar of Romania's energy independence, and of fulfilling all the decarbonization targets undertaken by Romania as a EU Member State.

With the implementation of the project, the contribution of nuclear power in the total energy production, at national level, will be of 36 %, and the contribution of nuclear power in the total energy production without CO2 emissions of 66 %, at the same time with the development of the internal supply chain, and other collateral industries.

Investment projects
Small Modular Reactors



Romania has the potential of implementing small modular reactors, and becoming a catalyst for the development of SMR in the region, and also a base for ensuring the operation of this new type of technology in other states. For this purpose, we will develop the first simulator for the control room of a modular reactor, which we will use for training the new generation of engineers.

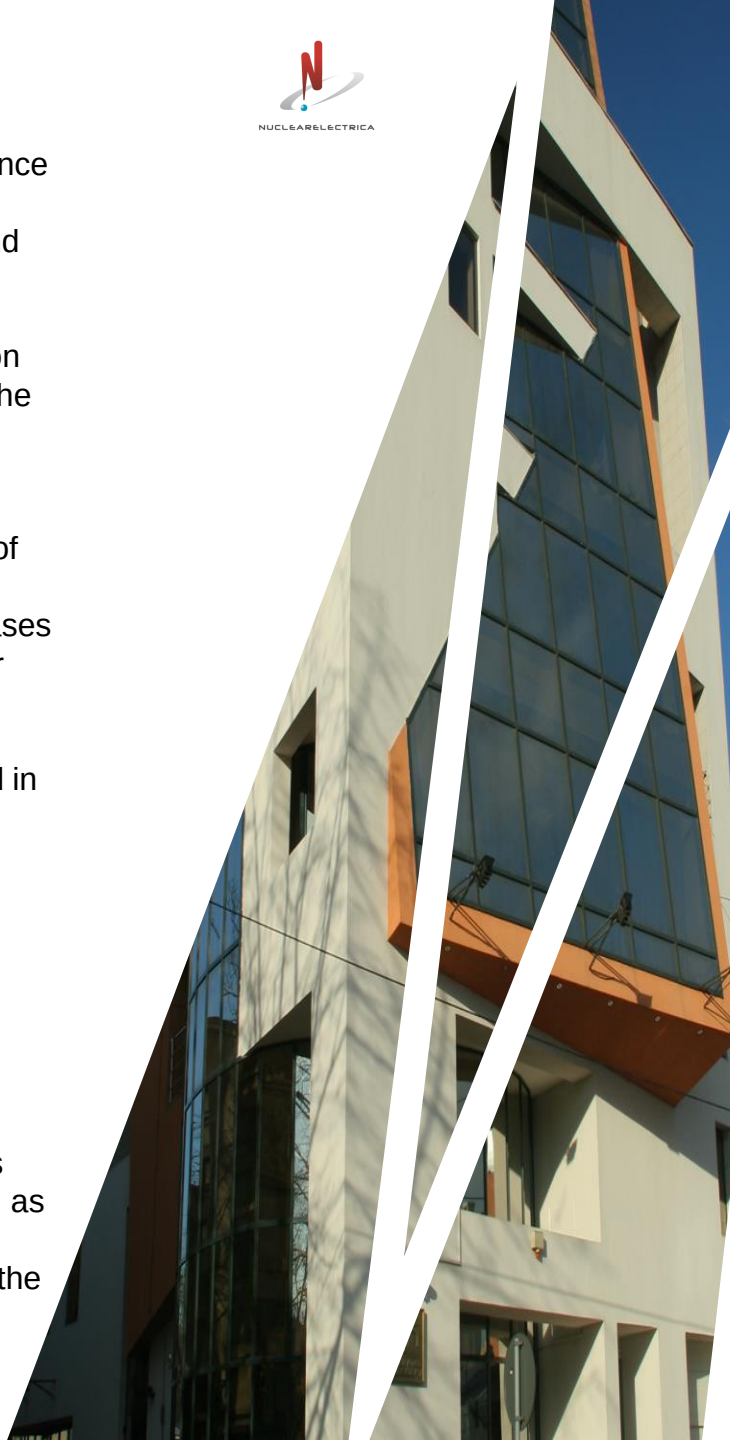
Small modular reactors (SMRs) are advanced nuclear reactors that have an installed capacity of up to 300 Mwe/reactor, which means approximately a third of the capacity of a gigawatt reactor. A small modular reactor from NuScale has an installed capacity of 77 Mwe and can be used in plants of 4, 6 or 12 modules, as needed.

NUCLEAR SAFETY

Romania is ranked first in the world in terms of the coefficient of use of the installed power since the commissioning of Units 1 and 2.
Cernavoda NPP was assessed at international level in terms of the level of nuclear safety and obtained the nuclear excellence rating.

The permanent maintenance of a high level of nuclear safety during all phases of construction and exploitation of nuclear objectives and installations is of vital importance and represents the first priority for SNN.

SNN developed and complies with a nuclear safety policy that was approved by CNCAN, with the purpose of maintaining a high and constant level of nuclear safety in all the phases of the commissioning and operation of nuclear installations. The nuclear safety policy ensures performance warranties for all the significant activities regarding nuclear safety, in all the phases of installation and operation of nuclear facilities. This document confirms the fact that nuclear safety has the maximum priority.
The high level of nuclear security is ensured by the design,
construction and operation of the nuclear installations. The risk generated by the nuclear fuel in the reactors is
minim for the population and the environment, due to the fact that:
(i) The power of the reactor is under control;
(ii) The fuel is cooled;
(iii) The radiation is contained, all these taking place on a continuous base.
After the Fukushima accident, the European Commission and the Group of European Regulators of the SNN decided that the nuclear security of nuclear plants in Europe shall be reviewed based on transparent and extended risk evaluations, called „Stress tests”. The technical purpose of these stress tests was defined considering the risks pointed out by the events occurred at Fukushima. The following issued were stressed: initiation events, such as earthquakes or floods, the consequences of losing the security functions during such events, as well as management difficulties of severe accidents.
The evaluation performed proves the fact that Units 1 and 2 of Cernavoda NPP comply with the nuclear safety requirements established by the project and that they
withstand severe earthquakes and floods, as well as the total loss of electrical energy and cooling water supply.



INTERNATIONAL RELATIONS

The nuclear industry is especially through the fact that inside it, there is a continuous flow of experience and information exchange. Each operator of Nuclear Plants is part of an international network of approximately 440 Nuclear Units globally. At international level, the leader in international cooperation, in the nuclear field, is the World Association of Nuclear Operators (“WANO”), and at the government level, the International Agency for atomic Energy from Vienna (“AIEA”).

The purpose for the development of this international cooperation network is the analysis of different event categories and the dissemination of lessons learned in order to eliminate recurrence, promoting experiences and optimum practices adopted and implemented internationally, benchmarking and evaluation of implementing standards at international level, control and monitoring of performance indicators and updating them to keep a constant high level of nuclear security, organizing inter-pares evaluation missions for ensuring the adherence and for each operator of Nuclear plants to adopt the best practices at international level and evaluated through de facto performance.

Therefore, at the nuclear industry level, it is created what is called the “inter-pares pressure”, element which determines keeping certain high security nuclear standards. In general, the international cooperation programs, mainly in the technical operating area, are divided in four distinctive categories: international evaluation missions, experience in operation, technical support and, implicitly, exchange of information and experience, continuous technical and professional development.

All information categories and data resulted following the development of these programs are disseminated to all members, within the international system.

SNN pays particular attention to safe operation of nuclear facilities which it operates, to equipment reliability, increased performance in operation, exchange of experience, with direct results on employee performance, involvement in building political support and development programs related to integrated development of the company.

Therefore, according to the practice at international level, SNN is an active member in a series of international organisms, with different areas at applicability, from nuclear security, radioprotection, management of radioactive waste up to procurement, financial benchmarking, international law.

Depending on their specificity, these organizations can have a regulation and inspection nature for its members in order to improve their performance (e.g. World Association of Nuclear Operators - WANO) or consultative, participatory and inter-sharing of knowledge character, participation in joint projects as an effective mechanism to reduce research and purchase equipment costs.

SNN is affiliated with a number of organizations both at European and international level in order to benefit from the operational experience available in their participation in decision-making processes that may affect European policy and global alignment of nuclear safety standards imposed by CNCAN, recognition of results, among which we mention:

World Association of Nuclear Operators (WANO): represents the association of all owners of Nuclear Power Plants in the world, founded in 1989. SNN has been a member of Atlanta Regional Center since 1991. In 2011 it became a member of London Coordination Centre.

WANO membership guarantees: participation in assessment missions, exchange of experience in operating, technical support, technical and professional development. The WANO membership facilitates the information exchange in the field of exploitation experience of Nuclear Plants, therefore WANO members working together for reaching the highest standards in the field of Nuclear Plants exploitation under high nuclear and reliability security standards. Through WANO, all Nuclear Plant holders may communicate and exchange information between them, openly and cooperatively. This working method allow each WANO member to benefit and learn from the experience of other members, to get in line with the best practices global practices in the field, all with the final purpose of increasing the security degree in exploiting the Nuclear Plants they own.

Candu Owners Group (COG): represents a private international non-profit organization, which includes organizations from Canada (AECL, Ontario Power Generation, NB Power, Bruce Power Generation, Hydro Quebec), Argentina, China, India, Korea, Pakistan and Romania. Within COG, SNN participate to the basic program Information Exchange (IE), Research and Development Program (R&D), Nuclear and Environment Safety Program (Nuclear Safety & Environmental Affairs NSEA), Joint Projects Program (Joint Projects - JP). The COG activity is generally focused on a regulation, research, maintenance, development, technical assistance and information exchange program between its members.

The International Agency for Atomic Energy (AIEA): serves as inter-government world forum for the scientific and technical cooperation in the nuclear field. AIEA encourages the use of atomic energy by the signatory states, offering them the necessary technical assistance and providing them experts in the field, respectively the necessary logistic base. Romania is a founding member of AIEA.

NEA OECD: Romania has joined the Nuclear Energy Agency (NEA) within the Organization for Economic Cooperation and Development (OECD) in June 2017. NEA represents the intergovernmental agency that facilitates the cooperation between the countries that use nuclear technology and aim to achieve the highest standard of nuclear safety, corroborated with the performance in environment protection, technological and economic development.

European Nuclear Installations Standards (ENISS): brings together policy makers and specialists in the nuclear industry, along with representatives from nuclear regulatory bodies to establish together security targets, regulations and security measures that will ultimately become a common set of European safety standards for the nuclear installations.

The European Atomic Forum (affiliation to the Romanian Atomic Forum): represents a non-profit European organization with the following purposes: supporting the role of the nuclear energy at an European level by active involvement in the energetic policy of the European Union, adopting support positions for member states operating Nuclear Plants and involving specialists in the work groups at European level in order to centralize different points of view and measures.

The results of active attendance within different international organisms is directly reflected in the performance indicators associated to the fields: operation, radioprotection and radioactive waste management.

Activity of SNN at BSE

DIVIDEND POLICY

SNN is a national company with a majority state capital. Thus, profit distribution is done in compliance with the provisions of Government Ordinance no. 64/2001 ("O.G. 64/2001") regarding the distribution of profit at national entities, national companies and commercial companies with full or majority state capital, and at autonomous administrations, as subsequently amended and supplemented.

Thus, according to the provisions of O.G. no. 64/2001, the minimum dividend distribution share is 50% of the net profit remained after the distributions provided under art. 1 par. (1) let. a)-e) from O.G. no. 64/2001.
The legislative framework could be amended in the future by amending the legislation in force, so that the minimum dividend distribution share would be changed.

The provisions of O.G. 64/2001 establish a minimum mandatory dividend distribution share.

Thus, as long as the provisions of O.G. 64/2001 remain unchanged, the Company may propose to the shareholders a dividend distribution share between 50% and 100% of the distributable profit. The profit share to be distributed annually by the Company in the form of dividends is subject to approval within the General Meeting of Shareholders.
Thus, SNN registers and pays dividends distributed from the net profit, only after the approval of the annual financial statements by the General Meeting of Shareholders and the profit distribution proposal.

ROLE OF NUCLEAR ENERGY IN THE DECARBONIZATION PARADIGM

Based on IEA data, energy consumption worldwide grew by 2.3% in 2018 alone, nearly twice the average rate of growth since 2010. As a consequence of higher energy consumption, energy-related CO2 emissions increased by 1.7%, to 33,1 Gt/Co2. Therefore, we are no where near the Paris Agreement 2C target. As an important percentage of CO2 emissions are energy-related, the pace of transitioning to clean energy sources needs an acceleration.
As per the World Energy Outlook, $1.1 trillion is expected to be invested in nuclear power by 2040, which means approximately 46% increase in nuclear power output. Even though, the WEO estimates an increase in nuclear power investments, globally, nuclear generation will go below 10% and far less than the required output of nuclear production as per the Sustainable Development Scenario.

Based on the EU directions of the 2030 Framework for Energy and Climate policy, there is a need, at least at European level, to reach the targets of decarbonization through means of technology neutrality and common efforts for the application of efficient support mechanisms in areas where market challenges hamper major investment projects, as a sustainable transition to clean energy sources.

We are also a strong advocate for the development of nuclear energy as an important contributor to the stable, clean energy mix, not only by nuclear new build or refurbishment, but by also extending innovation and research to develop Generation IV nuclear reactors: lead cooled fast reactors, such as the ALFRED project developed in Romania, molten salt reactors, SMR's. That is why Romania gladly adhered to the NICE Future initiative under the Clean Energy Ministerial approach, a global effort to recognize and benefit from the multiple use of nuclear energy within the framework of the highest nuclear safety standards, that is why we have recently signed an MoU with NuScale for information sharing regarding the SMRs technology development.

In conjunction with the NICE initiative on the strategic role of nuclear industry development, MIT study adds on: nuclear energy is a "firm "source, essential to achieving a deeply decarbonized electricity sector. For most regions, EU included, meeting the 2050 targets requires a mix of resources, mainly firm resources, fact which should be fully accounted for in decarbonization policies and meeting targets. Policies that foreclose a role for nuclear energy directly impact investments in nuclear energy and directly increase the cost of decarbonization. Policies that support decarbonization via a single source directly impact not only the cost and pace of decarbonization, but wholesale markets, generators, energy systems and end consumers.

CSR

SNN plays several strategic roles in relation to various social actors and by constantly mapping them and their interests and tries to maximize the benefits that everyone receives from the relationship with SNN. The company is aware of the contribution of nuclear energy to the national energy system, which translates into the ignition of one of 5 light bulbs in our home, but also of the importance of nuclear safety and environmental protection, accompanying every decision it makes. From the strict monitoring of the effluents in the environment, to the safe management of nuclear waste, SNN meets the targets it has committed to, observes the national and international standards in the field, and manages to occupy every year top positions among nuclear plants around the world.

Every year, SNN establishes a planned program of CSR actions, including goals, objectives, focused on several social problems identified, along with the estimated budget required to implement the CSR programs. In choosing the programs it will support, SNN contextually analyzes the communities it operates in, with the purpose of identifying the social aspects that support or, on the contrary, hinder business, and the CSR projects designed by SNN will be connected to the nature of the company's business, the welfare of employees or other categories of stakeholders. SNN has a proactive approach in identifying partners and potential beneficiaries of CSR projects and develops a transparent decision-making process, based on clear criteria. The results obtained from CSR campaigns will be brought to the attention of stakeholders, such as investors, employees, partners and collaborators.

CSR

SN Nuclearelectrica SA launched the social responsibility platform "Nucleus of care", which follows the strategic directions and the company's vision to build a sustainable future for the next generation, both by producing clean energy at excellent standards and by the socio-economic impact it has in Romania.

The **"Nucleus of Care" platform** targets projects and beneficiaries whose financing needs fall into the **medical, educational and environmental fields, with priority given to the projects in the areas where the company operates**.

In the period 2019-2021, Nuclearelectrica sponsored 107 projects, with approx. 30 million lei in total, supporting approx. 11 million Romanians. The sponsored projects targeted the educational, medical and environmental protection field: 25 projects in the medical field, 33 projects in the educational field, 5 environmental projects and 28 projects for various other fields.