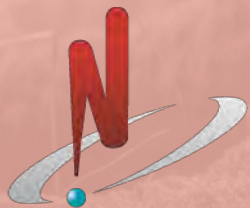


Sustainability Report



NUCLEARELECTRICA

Electricity production in 2020

11.466.405 MWh

CSR and sponsorships program

RON 10.000.000

2020 investment program

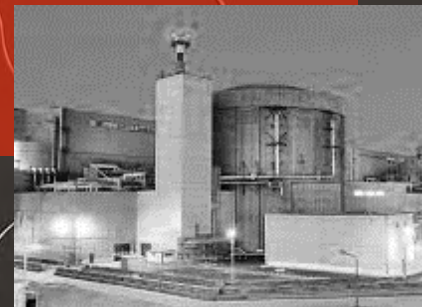
RON 309.544.000

Legislative framework

The non-financial reporting is prepared in compliance with Directive 2014/95/EU of the European Parliament and of the Council, based on the Guidelines on reporting non-financial information (2017/C215/01) and contains non-financial information and information regarding the diversity of the company's activities, relevant, useful and applicable to a producer of nuclear energy such as SN Nuclearelectrica SA, exemplified through performance indicators allowing all interested categories of the public to compare the relevant annual results, through reference to policies, procedures and authorizations applicable and used by SNN.

Given the specific nature of SNN, the production of energy through nuclear procedure and the manufacture of nuclear fuel bundles in order to operate the two Cernavoda NPP units, objectively, not all the indicators specified in the above mentioned guidelines are applicable to the company.

This non-financial statement includes information and data on the main business that influence both the company and its stakeholders, the environment and the population, and provides a comprehensive description of all impacting factors, the management method and results, with a view of illustrating the company's responsibility towards all these categories of the public and the environment.





Our mission:

Capitalization of nuclear resources for producing clean energy under conditions of safety and economic efficiency.

Our vision:

High-performance, innovative national company, determined to obtain excellent and sustainable results, in the top rankings of nuclear energy.

Our values:

- Responsibility
- Teamwork
- Integrity
- Mutual respect
- Professional excellence
- Continuous improvement

Business model

1.1. Own organization and structure

Societatea Nationala Nuclearelectrica S.A. (“SNN” or the “Company”) is a national joint-stock company, managed in a one-tier management system, having the registered office in Bucharest, 1st District, 65, Polona Street, and two branches without legal status. The main activity of the company is represented by the “Production of electricity” – NACE code 3511, and it is recorded in the Trade Register under no. J40/7403/1998, tax number 10874881, fiscal attribute RO.

SNN was incorporated on July 2, 1998 by Government Resolution no. 365/1998, following the reorganization of the Romanian energy system. Before the reorganization, the nuclear power plant was part of RENEL, national vertically integrated company that was divided in different national companies owned by the state. SNN operates in compliance with the Romanian law and the Articles of Incorporation.

The shareholding structure as at 31.12.2020 is as follows:

Shareholder type	Number of shares owned	% share capital ownership
Romanian State - Ministry of Energy*)	248,850,476	82,4981 %
Other shareholders	52,793,418	17,5019 %
Total	301,643,894	100%

*) Starting with February 11th, 2020, the shares held by the Romanian State via the Ministry of Energy are transferred to the Romanian State via the Ministry of Economy, Energy and Business Environment, as a result of the implementation of the provisions of the Government Emergency Ordinance no. 68/ November 6th, 2019.

Business model

Own organization and structure

CNE branch

provides the operation of the two nuclear units



FCN Branch

where CANDU fuel bundles are made for Units 1 and 2 of Cernavoda



Energonuclear S.A

The project company responsible for the realization of the U3 and 4 project, wholly owned by SNN



At present, SNN is the only producer of electricity based on nuclear technology in Romania. SNN also produces nuclear fuel bundles, CANDU type, used for the operation of its own nuclear reactors.

CNE branch (Nuclear - Electric Station) Cernavoda, with the registered office in Cernavoda, 2, Medgidiei Street, registered with the Trade Register under no. J13/3442/October 11th, 2007, provides the operation of the two nuclear units, based on CANDU technology type, as well as the management of all SNN assets in Cernavoda (except for Units 1 and 2 in operation, Units 3 and 4 in different construction stages, Unit 5 for which the shareholders of the Company approved the change of destination since March 2014, namely, the use thereof for the performance of the activities related to the operation of Units 1 and 2, and also the central heating system). The two units have a installed capacity around 700 MW each (MWe 706.5 Unit 1 and MWe 704.8 MWe Unit 2).

FCN Branch (Nuclear Fuel Plant) Pitesti, with the head office in Mioveni, 1, Campului Street, registered with the Trade Register under no. J03/457/August 24th, 1998, where CANDU fuel bundles are made for Units 1 and 2 of Cernavoda.

Unit 1 was commissioned in 1996 and Unit 2 in 2007. The two reactors alone provide about 17% - 18% of the internal energy production of Romania. The nuclear reactors from the two units are 6 CANDU type, design developed in Canada, by Atomic Energy of Canada Ltd. This type of reactors are cooled and moderated with heavy water and use natural uranium as fuel. The initial project envisaged the construction of 5 nuclear units CANDU type.

Cernavoda NPP Units 3 and 4 Project



According to the Government initial strategy, the construction of CNE Cernavoda Units 3 and 4 will be completed by Energonuclear S.A., a subsidiary of SNN, incorporated in 2009. In compliance with the Resolution of the Shareholders no. 8/June 12th, 2020, the Board of Directors was empowered to initiate the procedures/steps/actions on the termination of negotiations with CGN, as well as the termination of the legal effects (by agreement of the parties, termination, etc.) of the following documents: "Memorandum of Understanding on the development, construction, operation and decommissioning of Units 3 and 4 of CNE Cernavoda (MoU) and (ii) Investor Agreement in preliminary form".

The Board of Directors was also empowered SNN to initiate the necessary steps for the analysis and crystallization of strategic options for the construction of new nuclear power generation capacities. On October 9th, 2020 the Agreement was concluded in Washington DC between the Government of Romania and the Government of the United States of America on the cooperation related to the nuclear-energy projects in Cernavoda and in the civil nuclear energy sector in Romania: In reference to the investment projects implemented by SNN, the stage of authorizing this agreement mainly refers to the extension of the capacity of the NPP Cernavoda and the Project for Revamping Unit 1 of NPP Cernavoda. Also, the US Government expressed its interest, via the US Import Export Bank, to support the global funding of the projects, in full observance of the policies, procedures and the decision independence of these institutions, this financial component being included in the Inter-Government Agreement.

Unit 5 is currently completely depreciated, due to the fact that there is no plan for its construction; in March 2014, the shareholders of the Company approved the use of Unit 5 for operating activities of Units 1 and 2.

Units 1 and 2 use, on an annual basis, approximately 11,000 nuclear fuel bundles, each containing around 19 kg of uranium. In order to produce the necessary fuel, NFP Pitesti operates at maximum capacity. In 2020, NFP Pitesti branch manufactured 10,800 nuclear fuel bundles and delivered to NPP Cernavoda 10,080 nuclear fuel bundles, according to the manufacturing and delivery plan.

9.10.2020 - Agreement between the Government of Romania and the Government of the United States of America on cooperation in connection with projects nuclear power is being initialed in Washington



Market on which the company operates

SNN operates only on the Romanian market, being the only nuclear power producer in the country.

1

On the competition market

On the competition market by energy sale-purchase contracts on the markets managed by the market operator OPCOM S.A.: mainly PCCB – LE and PCCB - NC (centralized market for bilateral electricity contracts with the method trading contracts by extended tender procedures and the method of trading contracts according to which contracts are distributed by continuous negotiations), PZU (following-day market) and PCSU (universal service centralized market) and PC-OTC (the centralized market with double negotiation of bilateral electricity contracts).

2

On the balancing market

On the balancing market managed by Transelectrica S.A., in case of positive unbalance.

3

By the energy supply contracts

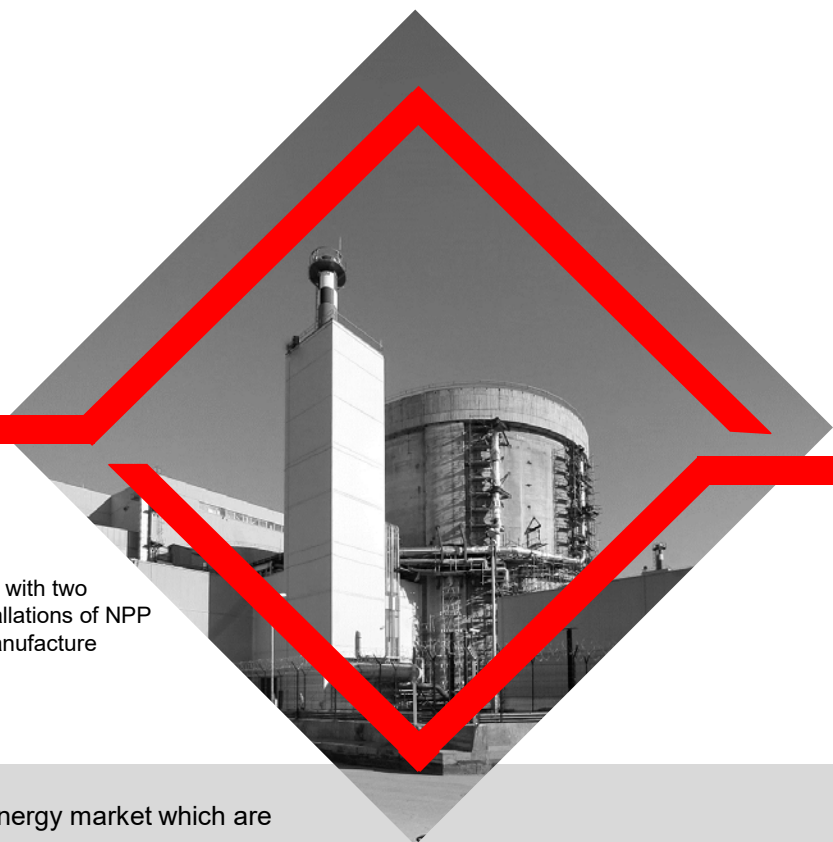
By the energy supply contracts concluded with two consumers supplied directly from the installations of NPP Cernavoda, according to the electricity manufacture license.

The thermal energy produced and sold both in 2019 and 2018, by means of CNE Cernavoda, was exclusively delivered to the local supplier of thermal power. In Cernavoda, SNN is the only manufacturer delivering thermal power in a centralized system. Starting with 2020, small quantities (0.5% of the sold thermal energy) were sold to end clients / companies.

The participants to the Romanian energy market which are certified by ANRE are:

- Energy producers;
- Compania de Transport a Energiei Electrice, Transelectrica S.A.;
- Energy distributors;
- Energy suppliers;
- Energy traders.

The supply of electricity was performed in 2020 on the regulated and competition-based market.



On date of this Report, there is no data published by ANRE on the electricity market in 2020, on December 31st, 2020. According to the ANRE market monitoring report for November, the market share of the manufacturers with dispatch units depending on the electricity delivered in the networks in January-November was for SNN of 20.91%, whereas the value of the indicator calculated for Hidroelectrica was of 29.38% and for C.E. Oltenia of 14.40%.

According to the statistical data centralized by Transelectrica S.A. until now, in 2020, the SNN production represented 20% of the total electricity produced in Romania (net values: January - November period).

The structure of the gross energy production at national level is as follows:

Structure of the energy production	2020 (January - November period).		2019	
	GWh	%	GWh	%
Conventional power plants	18,171	35.9%	23,799	40.1%
Hydro power plants	14,189	28.0%	15,829	26.7%
Nuclear power plants	10,417	20.6%	11,280	19.0%
Wind power plants	6,180	12.2%	6,745	11.4%
Photovoltaic power plants	1,668	3.3%	1,734	2.9%
Total	50,625	100%	59,387	100%

Source: National Institute of Statistics – Press release no. 19/2021.

For the first 11 months, the estimated gross energy production in Romania decreased almost 6.5% in 2020 as compared to 2019, whereas the estimated consumption dropped by 4%. In 2019, national exports decreased by 40.6% as compared to the value of the previous year, reaching a value of 4,375.9 GWh, representing 37% from the population consumption, which is 11,746.6 GWh, out of a total national consumption of 48,545.9 GWh for 11 months (except for own technological consumption in networks and stations).

In 2020, the quantity of electricity sold by SNN was 10,805 GWh (including the quantity sold on the balancing market), whereas, in 2019, the sold quantity was 10,652 GWh (including the quantity sold on the balancing market).

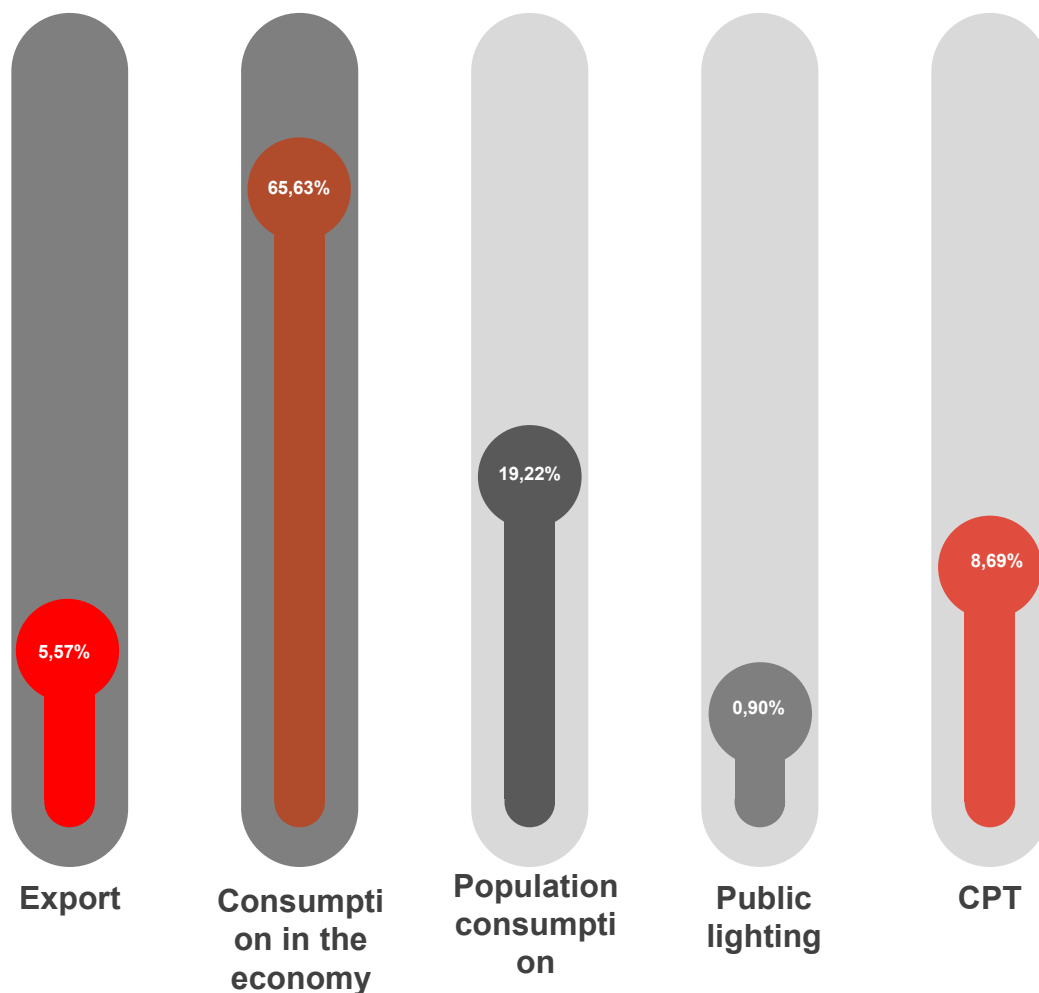
Therefore, while in 2018, SNN sales represented nearly 19.1% of the final energy consumption needs, in 2019, SNN sales represented nearly 19.3 % of the final energy consumption of the national economy, which was 55,298.9 GWh (down by 1% as compared to 2018).



Structure by destinations of the electricity resources in 2019 - 2020:

Destinations of the electricity resources in 2019

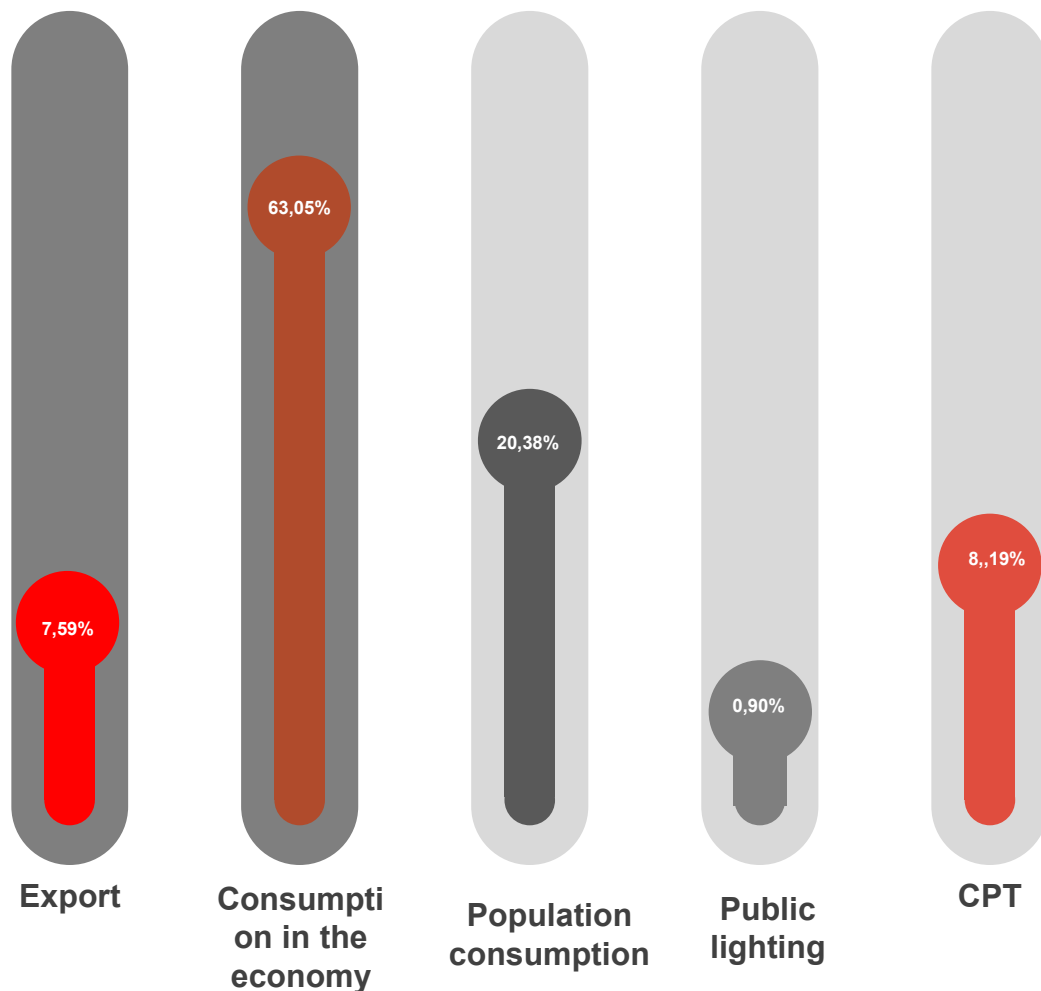
Source: National Institute of Statistics – Press release no. 19/2021 (CPT: own technological consumption in networks and stations).



Structure by destinations of the electricity resources in 2019 - 2020:

Destinations of the electricity resources in 2020

Source: National Institute of Statistics – Press release no. 19/2021 (CPT: own technological consumption in networks and stations).





Strategic objectives

Nuclearelectrica provides 18% of the energy produced in Romania, which represents approximately 1 in 5 light bulbs lit by nuclear energy.

Strategic objectives



The company has its mission, goals and values defined in a coherent way. The general goals represent a comprehensive picture of SNN's annual objectives, which in turn are supported and fulfilled by annual plans and specific programs. Alongside the other major producers on the Romanian electricity market, SNN will have the mission to ensure the satisfaction of domestic electricity demand, under specific conditions in terms of the plants' nuclear safety and environment protection, and the safety of the population and of its own staff.

Among the main characteristics of SNN we can recall: the high value of the installed capacity utilization factor, low CO2 emissions, the low dependence on the cost of energy produced by the variations in the price of uranium, the relatively constant and predictable production costs, the high level of technical training of the operating personnel.

The strategic goals are developed based on the national and international context, such as: the support given by the Romanian Government to the nuclear energy sector, the need to rehabilitate the obsolete power generation capacities, the electricity demand synchronized with the evolution of the GDP, the tendency for diversification of energy production capacities (the support given to production from renewable energy sources; the impact of petrol price increases), the development of new major power producing companies that will have extensive capacities and will be active at international level.

Objectives and measures to achieve them

Regarding the operation of the nuclear units in safe conditions and nuclear security for the staff, population, environment and production assets:

- **Maintaining a degree of maximum availability of technological systems and with security features.**
- **Improving/maintaining the high level of professional training for the staff operating the two nuclear units.**
- **Maintaining the volume of radioactivity releases in water and air below the regulated level.**
- **Maintaining memberships within international organizations in the nuclear energy industry and, if applicable, affiliation to other organizations.**
- **Ensuring the oversight function.**





In order to maintain the power production capacity above the average level in industry:

- Performing the maintenance and repair plans in order to increase the reliability of equipment and systems and the operation of nuclear units under safe and secure conditions.
- Running lifetime management programs for the Cernavoda NPP components and systems (reactor, steam generator, turbo-generator etc.).
- Continuing the programs for the replacement of worn and obsolete components and equipment.
- Performing, on time and under conditions of maximum quality, the mandatory annual inspection programs of the vital nuclear components (fuel channels, heat exchangers, etc.).
- Maintaining the over-average power utilization rate in the nuclear industry.
- Implementing the strategy for diversifying sources of raw material supply needed to produce nuclear fuel.

By OGMS Resolution no. 7/12.06.2020, the

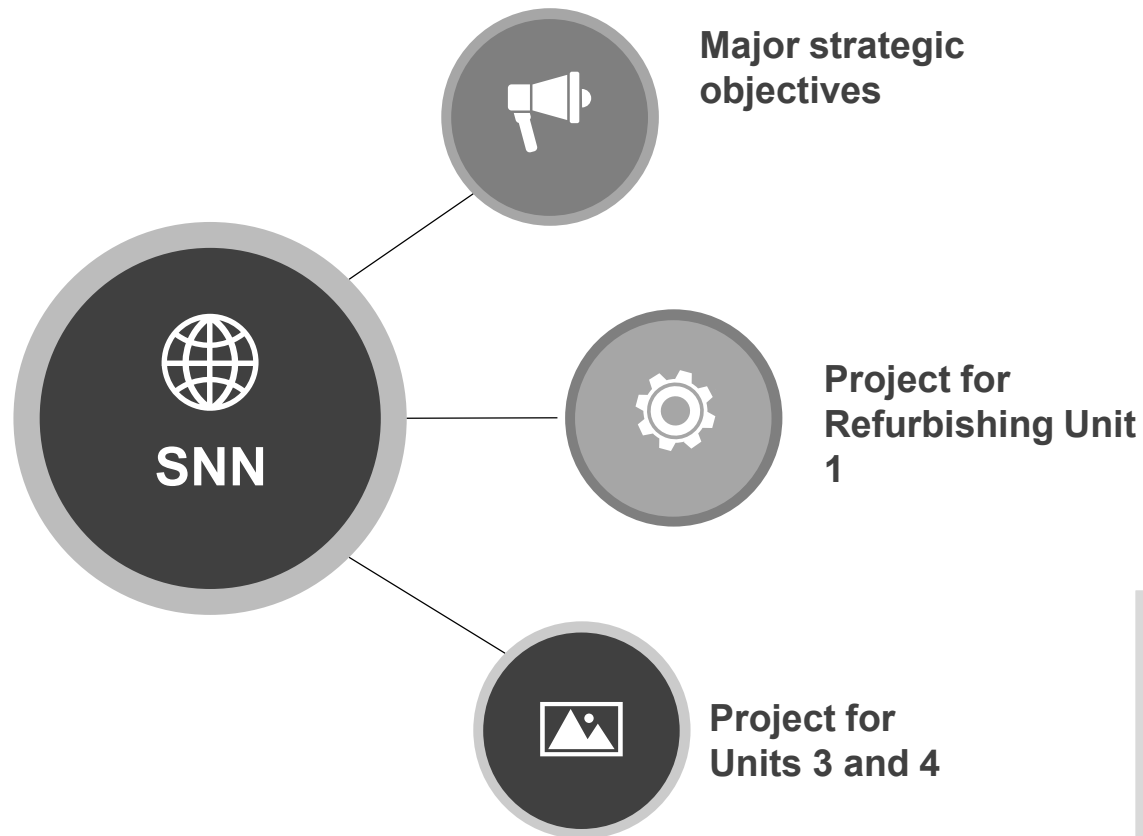
shareholders of SNN approved the Investment Strategy of Societatea Nationala Nuclearelectrica S.A. for period July 1, 2020 – July 1, 2025 (hereinafter referred to as “Strategy”). The strategy was drafted according to the requirements of Order of the Ministry of Economy, Energy and Business Environment no. 893/16.04.2020, and is structured around the component which is subordinated to the attributions and competences of the Board of Directors, namely on the component that derives from the development requirements of the electricity sector from Romania - Project for Refurbishing Unit 1 of Cernavoda NPP and Project for Units 3 and 4 of Cernavoda NPP.

When elaborating the Strategy, the specific nature and the uniqueness of the company’s main scope of business - the production of electric and thermal energy by nuclear processes - within the national economic framework, were taken into account, considering with priority the principles of nuclear safety, which prevail.

Main milestones of the Investment strategy 2020-2025:

- (A) Major investment objectives:
- (1) Investments and capital repairs made on Unit 1 and Unit 2 during the scheduled stoppages.
 - (2) Production of Cobalt-60 at Cernavoda NPP.
 - (3) Extension of the life cycle of Unit 1 by re-tubing the reactor and refurbishing the main systems (studies).
 - (4) Intermediate Dry Storage Spent Fuel Facility (DICA).
 - (5) Modernization and Expansion of Physical Security System.
 - (6) Fit-out of Unit 5.
 - (7) D2O Tritium Removal Installation.
 - (8) Projects for modernizing, integrating and securing the informational flow and the IT infrastructure (hardware and software) within SNN - Digital Upgrade.

Strategic objectives



Out of the major investment objectives, 6 objectives will be financed from the own sources of SNN, and will be included in the Annual investment and fitting programs of SNN, annex to BVC, except for project (2) Manufacturing Cobalt 60 at Cernavoda NPP - where the project value and the financing structure is to be completed - and project (7) Tritium Removal Installation D2O - whose financing will be ensured from attracted SNN own sources (loans).

The development and implementation of these projects depend on adopting decisions on the level of Romanian authorities, including a set of support measures: state securities for loans, difference contracts, etc., and the identification and structuring of the financing depend on a set of prior decisions of the Romanian authorities.

In the first quarter of 2021, the Board of Directors of ANN, in applying the mandate granted by the shareholders by Resolution no. 8/June 12, 2020 of the Extraordinary General Meeting of Shareholders of SNN, to initiate the necessary endeavors for analyzing and crystalizing the strategic options on building new energy production capacities from nuclear sources, will submit for the approval of the General Meeting of Shareholders the new Strategy for continuing the Project for Units 3 and 4 of Cernavoda NPP and the measures for its implementation.

Regarding the power trading strategy:

- Long time advance contracting to ensure company revenue stability and to lower the risk of electricity price volatility.
- Getting a sale price of more than 180 RON/ MWh for the entire period 2018-2022

Strategic objectives

Regarding the improvement of the financial performance indicators of the Company and the fulfillment of the three financial indicators mentioned in the contract with EURATOM we are considering:

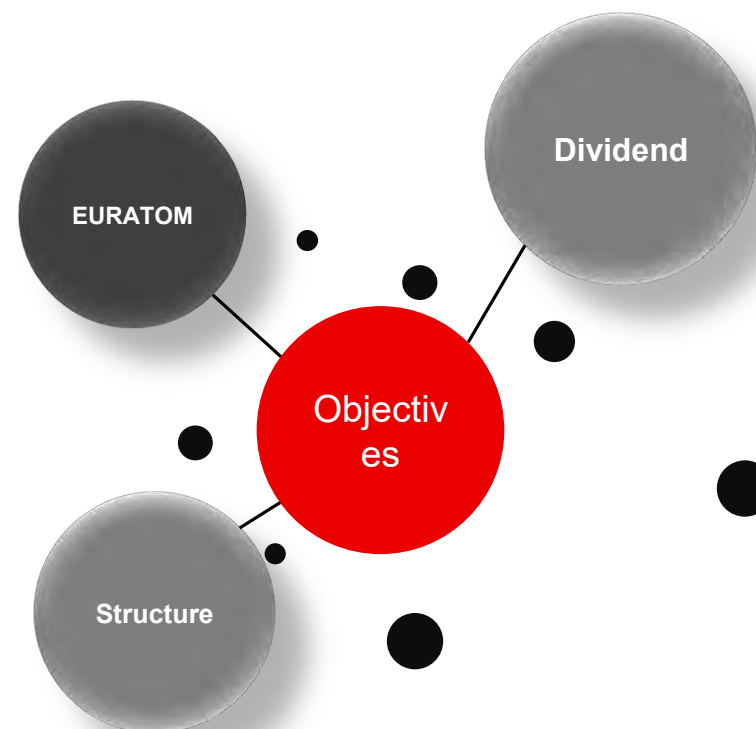
- Maximizing the use of the company's capabilities with a direct effect in obtaining adequate cost structures, while observing the nuclear safety culture.
- Strengthening the operational cash flows of the company to ensure liquidity needs for current investment projects and to increase the bankability of major investment projects run by SNN.
- Ensuring liquidity requirements for payment of outstanding installments on contracted loans.
- Strengthening the self-financing capacity of the activity (CAF) while observing the nuclear safety standards.

Regarding the optimization and streamlining of the organizational structure of the Company:

- Optimization envisages the implementation of an organizational structure that allows the company's capabilities to be maximized as a fundamental element of sustainability of the competitive advantages.
- Creating an internal resource allocation system to maximize and streamline direct-effect uses to achieve cost-effective structures.
- Amid the consolidation of the nuclear safety culture, we plan on implementing an organizational structure based on clearly defined roles, eliminating inadequate redundancy of roles, cascading goals, aligning skills with today's changing demands, based on good corporate governance rules, with a fluent vertical and horizontal communication system.
- Aligning the organizational structure with the other 3 dimensions of the organization: human resource, process system and technology.

With regard to maintaining a foreseeable / predictable dividend policy of the company:

- **Maintaining a dividend rate of at least 60% of the profit after the deduction of the profit tax.**



Strategic objectives



Regarding the observance of the principles of corporate governance and the code of ethics and integrity:

- Compliance with all legal provisions and recommendations of the Romanian capital market institutions regarding the principles of corporate governance.
- Performing a regular benchmarking with entities at international level and adopting international best practices.
- 0 tolerance to deviations in the SNN code of ethics.

Regarding responsible and active involvement in corporate social responsibility actions:

- Involvement in social responsibility actions at local and national level in the following fields: education and research, humanitarian and cultural fields.

2020 sponsorship program in numbers

33 initiated campaigns

RON 9,837,822.39 consumed budget

2,417,466 Romanians benefitted from the CSR and sponsorship program of SNN





Maintaining /
attracting highly
qualified staff

Strategic objectives

In terms of maintaining / attracting highly qualified staff, in the context of a specialized labor market:

- Adopting a strategy for attracting, training and retaining human resources.
- Implementing cooperation programs with the Polytechnic University of Bucharest and technical faculties at national level, especially in SNN operating areas, adapted to the medium- and long-term personnel needs of SNN in order to grant scholarships.
- Implementing national and local information campaigns in high schools to attract young people both for enrolling them in faculties (major in energy) and for attracting vocational school graduates.
- Developing traineeship programs for undergraduates and individual mentoring programs for young employees.
- Adopting specific human resources measures to increase the level of satisfaction of highly qualified staff and its retention in conjunction with the current and long-term needs of SNN.
- Implementing a remuneration system based on individual performance by analyzing individual performance indicators.



Investor relations,

Strategic objectives

In order to develop / improve reporting, control and risk management capabilities, paying increased attention to investor relations, SNN aims at:

- Integrating / correlating corporate risk management processes and mechanisms (other than operational approached by regulatory, standard and practices of the nuclear industry) with the processes and mechanisms for managing the risks associated with the operation of the nuclear power plant in order to ensure an adequate approach to the risks faced by the organization, in the sense of completeness of their management.
- Revising, improving and/or developing (as the case may be) processes and instruments for the management of corporate risk and revising and / or recalibrating / adjusting risk management tools periodically (e.g. internal procedures, algorithms and models, assessment scales, risk profile, risk tolerance limit, operational and informational flows).
- Increasing the knowledge of the Company personnel regarding risk management especially by conducting qualification / training sessions for the personnel of the SNN Power Station, NPP Cernavoda and NFP Pitesti.
- Improving information flows to circulate information about risks within the organization, both in order to better manage them in locations where exposure exists, and to better apply the principle of making informed decisions in terms of risks (RIDM - Risk-Informed Decision Making).
- Develop an internal business continuity management (BCM) framework.

Major investment objectives

As regards the fulfillment of the major investment objectives, the following major priority projects have been identified:

- Drafting the nuclear security documentation in order to reauthorize Unit 1 for operating all-through its life cycle. Estimated budget (2019-2022): 34.26 million RON.
- Unit 1 Refurbishment Project: running activities regarding:
 - i) the establishment of the volume of works on the basis of the technical status evaluation of the structures, systems and components of Unit 1;
 - ii) the selection of engineering support services for the beneficiary;
 - iii) the identification of the storage and management solutions for the radioactive waste generated during the refurbishment period and the infrastructure necessary to run the Refurbishment project;
 - iv) the elaboration of the feasibility study. Estimated budget (2019-2022): 165 million RON.



Strategic objectives

Major investment projects



DICA

Estimated budget
(2019-2022): 50 Million
RON.

The Intermediary Burnt Fuel Warehouse Project (DICA). The implementation of the measures foreseen in the Long-term revised strategy for the development of the Intermediate Spent Fuel Storage Facility (DICA) and authorization for the extension of the lifetime of Units 1 and 2 harmonized with CNCAN's observations, and those of the Ministry of Environment, Waters and Forests, respectively, approved by the shareholders of SNN by Decision no. 8/28.09.2017 of the Ordinary General Meeting of Shareholders. Estimated budget (2019-2022): 50 Million RON.



U3 si 4

Estimated budget :
74 million RON.

Project of Units 3 and 4 of NPP Cernavoda: running the pre-project activities (rechecking the feasibility, evaluating the assets, decision-making on IPC contracting, obtaining authorizations and approvals needed to start work, including support measures and final investment decision). Estimated budget (SNN cash contribution related to the 49% stake in the project company) 2019-2023: 74 million RON.



CTRF

Estimated budget:
896 million RON

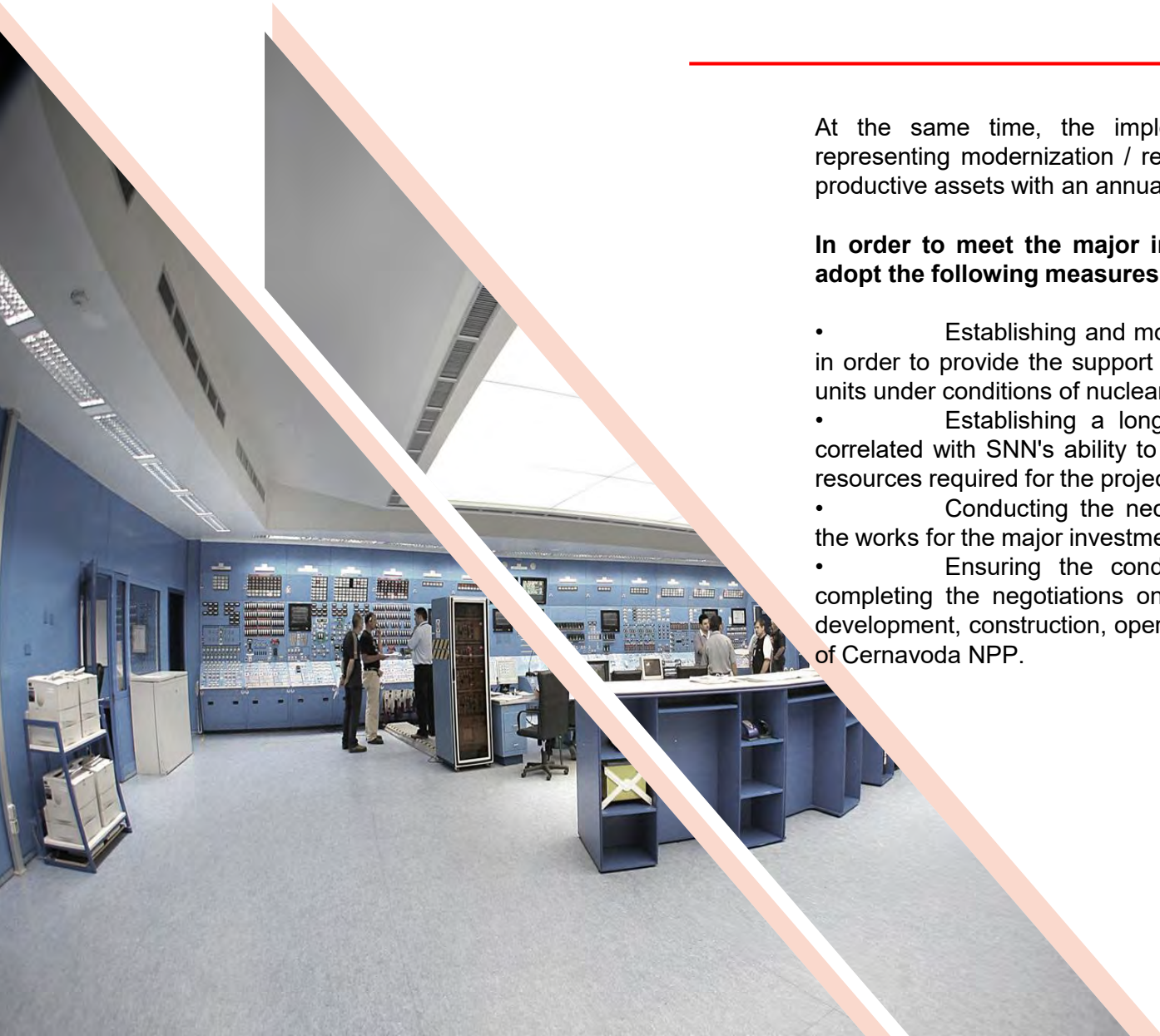
Tritium Removal Facility NPP Cernavoda Project: running the activities leading to the implementation of the project (selection of support services for the beneficiary, selecting the IPC contractor, obtaining the approvals and authorizations, structuring the financing, etc.). The total cost of the investment under the Feasibility Study is 896 million RON, and the project will be implemented by the end of 2026.

Strategic objectives

At the same time, the implementation of some investment projects representing modernization / rehabilitation / reliability improvements of the productive assets with an annual budget effort estimated at 90 million lei.

In order to meet the major investment objectives, it is necessary to adopt the following measures:

- Establishing and monitoring an investment strategy within SNN, in order to provide the support required for the operation of the production units under conditions of nuclear safety and security.
- Establishing a long-term priority order in a realistic manner, correlated with SNN's ability to allocate the technical, human and financial resources required for the projects mentioned.
- Conducting the necessary feasibility studies and commencing the works for the major investment objectives.
- Ensuring the conditions and the specialized personnel for completing the negotiations on the Investment Documents regarding the development, construction, operation and decommissioning of Units 3 and 4 of Cernavoda NPP.



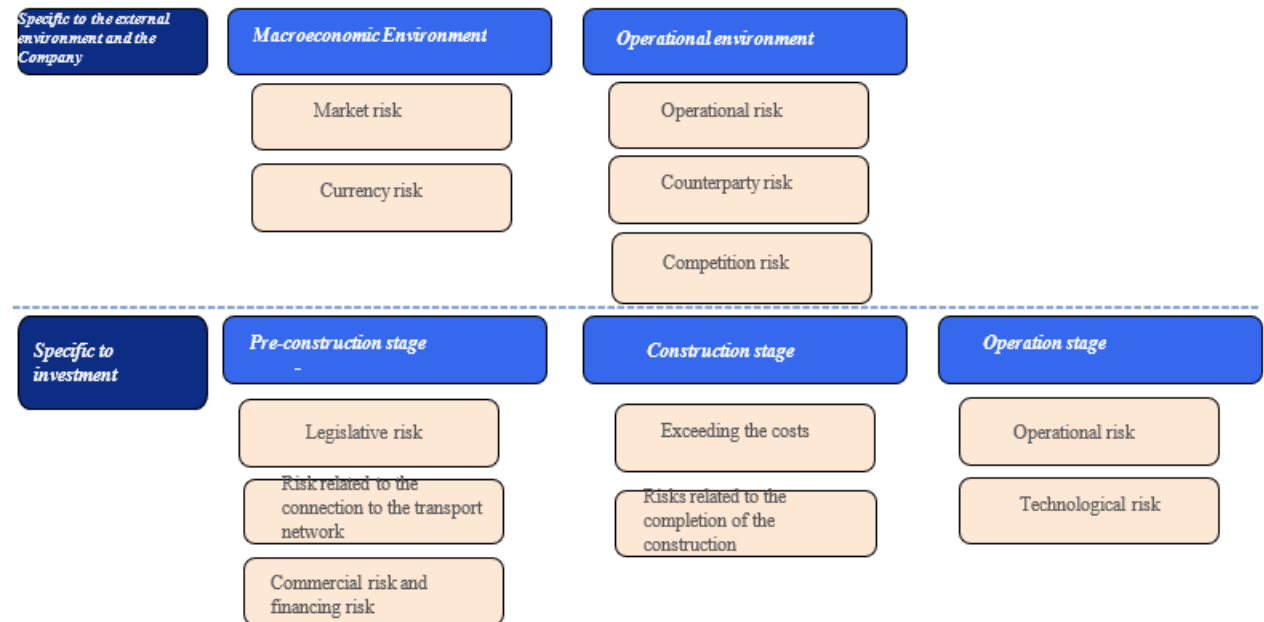
Register of risks and main trends and factors that can impact development



SNN established, in the development strategy 2015-2025, the main medium and long term strategies with the main focus of maintaining nuclear safety, the continuous growth and increase of its shareholders' profits, and the analysis of the risks of the activity is important in this context.

Medium and long term, the activity of SNN will be influenced both by the evolution of electricity prices and by the investment projects that the Company will develop: extending the life cycle of Unit 1, participating in the development of Units 3 and 4, continuing the development of DICA, setting up the funds needed for the solutions for the final storage of burnt fuel and building a tritium removal installation (CTRF - Cernavoda Tritium Removal Facility).

Consequently, the main risks in terms of SNN's activity and goals (market-related risks and project development) were analyzed. The diagram below comprises the overview of the main objectives, the critical elements in relation to the implementation of the strategies and the risks SNN will be faced with.



Source: SNN Analysis



Due diligence policy and process

The executive body of the company is the Board of Directors and consists of 7 members, one executive member and 6 non-executive members.

Unitary management of the Company

Due diligence policy and process

Structure. Appointment of members. Eligibility criteria.

The executive body of the company is the Board of Directors and consists of 7 members, one executive member and 6 non-executive members.

Within the Ordinary General Meeting of Shareholders of 30.01.2020, the appointment of Mr. Teodor Chirica was approved, as a temporary director, for 4 months, according to the provisions of art. 641 par. (3) and (5) of GEO no. 109/2011, as further amended and supplemented. Mr. Teodor Chirica was proposed on the list of candidates by the majority shareholder, the Ministry of Economy, Energy and Business Environment. We would like to mention that Mr. Teodor Chirica was appointed on 19.12.2019 by the Board of Directors of SNN, upon the recommendation of the Nomination and Remuneration Committee, in the position of provisional director, with a mandate duration until the Ordinary General Meeting of Shareholders, according to the provisions of art. 1372 of Law no. 31/1990.

Within the Ordinary General Meeting of Shareholders of 28.05.2020, the extension of the mandate for Mr. Teodor Minodor Chirica was approved, which ends on 30.05.2020, as provisional director for 2 months, as of 31.05.2020, according to the provisions of art. 641 par. (3) and (5) of GEO no. 109/2011 as further amended and supplemented or until the mandate is accepted by a director appointed according to the provisions of GEO no. 109/2011, as further amended and supplemented.



Due diligence policy and process



Teodor Chirica, President of the Board Directors

Within the Ordinary General Meeting of Shareholders of 27.07.2020, the appointment of Mr. Teodor Minodor Chirica as a member of the Board of Directors of SNN, following the completion of the selection procedure of a director, organized according to the provisions of GEO no. 109/2011 on the corporate governance of public companies, a procedure implemented by the Board of Directors of SNN assisted by an independent expert in human resources, according to OGMS resolution no. 1/30.01.2020. The term of the mandate for Mr. Teodor Minodor Chirica is until 28.09.2022, the date when the mandate of the directors in office expires.

On July 10, 2020, SN Nuclearelectrica SA issued a current report according to art. 122 par. (1) of Law no. 24/2017 on the issuers of financial instruments and market operations and art. 234, par. (1), letter g of ASF Regulation no. 5/2018 on the issuance of financial instruments and market operations regarding Resolution no. 130/July 10, 2020, whereby the Board of Directors took note of the resignation of Mr. Iulian Robert Tudorache from the position of member of the Board of Directors as of 24.08.2020. The decision of Mr. Iulian Robert

Tudorache to step down from the Director position is adopted according to the provisions of art. 5.1 let. g) of Mandate contract no. 55/28.09.2015 concluded between Mr. Iulian Robert Tudorache and SNN.

On 23.07.2020, SN Nuclearelectrica SA issued a current report according to the provisions of art. 234 par. (1), letter g) from ASF Regulation no. 5/2018 on issuers of financial instruments and market operations and Law no. 24/2017 on issuers of financial instruments and market operations regarding the fact that in the meeting of the Board of Directors of 23.07.2020, the Board of Directors took note of the decision of Mr. Iulian Robert Tudorache to step down from the position of BoD Chairman, and decided to appoint Mr. Teodor Minodor Chirica in the position of Chairman of the Board of Directors of SNN, according to the provisions of art. 1401 of Law 31/1990 on companies.



Corporate governance

Due diligence policy and process

The President of the Board is elected by the Board of Directors from among its members, in the person of Mr. Teodor Minodor Chirica, after Mr. Iulian Robert Tudorache stepped down from the position of BoD Chairman. The Chairman of the Board is appointed for a period that may not exceed the term of his/her mandate of director, and may be dismissed any time by the Board of Directors.

On 24.11.2020, SN Nuclearelectrica SA issued a Current Report according to art. 122 par. (1) of Law no. 24/2017 on the issuers of financial instruments and market operations and art. 234, par. (1), letter g of ASF Regulation no. 5/2018 on the issuance of financial instruments and market operations regarding the notification of Mr. Cristian Gentea on the legal termination of his mandate as a member of the Board of Directors as of 19.11.2020.

The notification of Mr. Cristian Gentea on the legal termination of the mandate contract derives from the provisions of art. 87 par. 1 let. d) of Law no. 161/2003 on some measures for ensuring transparency in exercising positions corroborated with the provisions of art. 13.1 let. g) of the mandate contract concluded with SNN, namely the contract is terminated upon the occurrence of a case of incompatibility or an interdiction provided by the law, as starting from 19.11.2020 Mr. Cristian becomes the mayor of Pitesti, a position which is incompatible with exercising the mandate of member of the Board of Directors of SNN.

Due diligence policy and process



The directors/administrators can be dismissed anytime by the Ordinary General Meeting of Shareholders. Each director/administrator has expressly accepted to fulfil the mandate. The company is obligated to conclude a D&O type insurance. During the mandate fulfillment, the directors/administrators may not conclude an employment contract with the company.



The members of the Board of Directors are obliged to exercise their mandate with prudence and diligence of a good administrator, with loyalty, on behalf of, and to the benefit of the company, and are not allowed to disclose confidential information and business secrets of the company.

Also, the BoD members undertake to provide the avoidance of a direct or indirect conflict of interests with the Company, and in case such conflict occurs, to refrain from discussion and vote on the respective matters, according to the current legal provisions.

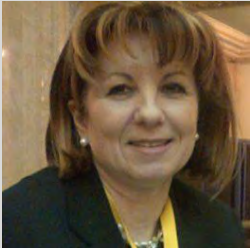



Due diligence policy and process



As at 31.12.2020, the directors of the Company are as follows:

First name and surname	Age (years)	Qualification	Professional experience (years)	Position	Date of appointment
	46 years	Attorney-at-law	18 years old	Chairman of the Board of Directors (non-executive member)	28.09.2018 (final mandate for 4 years according to OGMS resolution 12/28.09.2018) <hr/> Mandate contract concluded on 24.08.2020 following the waiver of the mandate
	57 years old	Physician engineer	31 years old	Non-executive member of the Board of Directors	28.09.2018 (final mandate for 4 years according to OGMS resolution 12/28.09.2018) <hr/> Mandate contract concluded on 19.11.2020 following the notification of Mr. Cristian Gentea on the legal termination of his mandate as a member of the Board of Directors.

Due diligence policy and process

First name and surname	Age (years)	Qualification	Professional experience (years)	Position	Date of appointment
	61 years old	Nuclear station engineer	35 years old	Non-executive member of the Board of Directors	28.09.2018 (final mandate for 4 years according to OGMS resolution 12/28.09.2018)
	53 years old	Economist	27 years old	Non-executive independent member of the Board of Directors	28.09.2018 (final mandate for 4 years according to OGMS resolution 12/28.09.2019) Mandate contract concluded on 09.10.2019, according to the provisions of art. 13.1 letter k) from the Mandate Contract.

Due diligence policy and process

First name and surname	Age (years)	Qualification	Professional experience (years)	Position	Date of appointment
<p>Mihai Daniel Anitei</p> 	51 years old	Mechanical engineer	22 years old	Non-executive independent member of the Board of Directors	28.09.2018 (final mandate for 4 years according to OGMS resolution 12/28.09.2018)
<p>Cosmin Ghita</p> 	31 years old	Economist	10 years	Executive member of the Board of Directors	28.09.2018 (final mandate for 4 years according to OGMS resolution 12/28.09.2018)

Due diligence policy and process

First name and surname	Age (years)	Qualification	Professional experience (years)	Position	Date of appointment
 Remus Vulpescu	49 years old	Legal Adviser	25 years old	Non-executive independent member of the Board of Directors	28.09.2018
					(final mandate for 4 years according to OGMS resolution 12/28.09.2018)
					28.12.2017
 Teodor Minodor Chirica	75 years old	Engineer	51 years old	Non-executive member of the Board of Directors	(temporary mandate according to OGSM Resolution 10/20.12.2017)
					19.12.2019
					30.01.2020 (mandate for 4 months, according to OGMS resolution 1/30.01.2020)
					31.05.2020 (mandate extension for 2 months, according to OGMS resolution 6/28.05.2020)
					27.07.2020 (permanent mandate according to OGMS Resolution no. 9/27.07.2020) after completing the selection procedure according to GEO 109/20117.07.2020



Due diligence policy and process

The members of the Board of Directors are appointed by the shareholders, during the Ordinary Meetings of the Shareholders. The company has no knowledge of any agreement, understanding or family connections between the administrators and/or other persons, due to whom the respective administrator was appointed.

According to criteria provided at point A4 of the Corporate Governance Code of BSE, the members of the Board of Directors with contractual relations with a shareholder owning over 10% of the voting rights, as at January 1, 2016 are: Iulian-Robert Tudorache (State Secretary within the Energy Ministry until June 2019), Elena Popescu (Chief Executive Officer, General Division of Energy Policies within the Ministry of Energy), Cristian Gentea (Chief Executive Officer of the Administration of Technologies for Nuclear Energy, an entity 100% owned by the Romanian State, a majority shareholder of SNN).

As at 31.12.2019, the members of the Board of Directors have no shares in SNN.

The members of the Board of Directors are appointed by the shareholders, during the Ordinary Meetings of the Shareholders. The company has no knowledge of any agreement, understanding or family connections between the administrators and/or other persons, due to whom the respective administrator was appointed.



Attributions of the Board of Directors

The main objectives of the Board of Directors appointed for a 4-year mandate, as of 28.09.2018:

Regarding the operation of the nuclear units in safe conditions and nuclear security for the staff, population, environment and production assets:

- Maintaining a degree of maximum availability of technological systems and with security features.
- Improving/maintaining the high level of professional training for the staff operating the two nuclear units.
- Maintaining the volume of radioactivity releases in water and air below the regulated level.
- Maintaining memberships within international organizations in the nuclear energy industry and, if applicable, affiliation to other organizations.
- Ensuring the oversight function.

In order to maintain the power production capacity above the average level in industry:

- Performing the maintenance and repair plans in order to increase the reliability of equipment and systems and the operation of nuclear units under safe and secure conditions.
- Running lifetime management programs for the Cernavoda NPP components and systems (reactor, steam generator, turbo-generator etc.).
- Continuing the programs for the replacement of worn and obsolete components and equipment.
- Performing, on time and under conditions of maximum quality, the mandatory annual inspection programs of the vital nuclear components (fuel channels, heat exchangers, etc.).
- Maintaining the over-average power utilization rate in the nuclear industry.
- Implementing the strategy for diversifying sources of raw material supply needed to produce nuclear fuel.

Strategia de investitii a SNN

By OGMS Resolution no. 7/12.06.2020, the shareholders of SNN approved the Investment Strategy of Societatea Nationala Nuclearelectrica S.A. for period July 1, 2020 – July 1, 2025 (hereinafter referred to as “Strategy”). The strategy was drafted according to the requirements of Order of the Ministry of Economy, Energy and Business Environment no. 893/16.04.2020, and is structured around the component which is subordinated to the attributions and competences of the Board of Directors, namely on the component that derives from the development requirements of the electricity sector from Romania - Project for Refurbishing Unit 1 of Cernavoda NPP and Project for Units 3 and 4 of Cernavoda NPP.

When elaborating the Strategy, the specific nature and the uniqueness of the company’s main scope of business - the production of electric and thermal energy by nuclear processes - within the national economic framework, were taken into account, considering with priority the principles of nuclear safety, which prevail.

Main milestones of the Investment strategy 2020-2025:



Major investment objectives

(1) Investments and capital repairs made on Unit 1 and Unit 2 during the scheduled stoppages.



(2) Production of Cobalt-60 at Cernavoda NPP.

(3) Extension of the life cycle of Unit 1 by re-tubing the reactor and refurbishing the main systems (studies).



(4) Intermediate Dry Storage Spent Fuel Facility (DICA).



(5) Modernization and Expansion of Physical Security System.

(6) Fit-out of Unit 5.
(7) D2O Tritium Removal Installation.

(8) Projects for modernizing, integrating and securing the informational flow and the IT infrastructure (hardware and software) within SNN - Digital Upgrade.





Major investment objectives

Out of the major investment objectives, 6 objectives will be financed from the own sources of SNN, and will be included in the Annual investment and fitting programs of SNN, annex to BVC, except for project (2) Manufacturing Cobalt 60 at Cernavoda NPP - where the project value and the financing structure is to be completed - and project (7) Tritium Removal Installation D2O - whose financing will be ensured from attracted SNN own sources (loans).

(B) Major strategic objectives:

- (1) Project for Refurbishing Unit 1;
- (2) Project for Units 3 and 4.

The development and implementation of these projects depend on adopting decisions on the level of Romanian authorities, including a set of support measures: state securities for loans, difference contracts, etc., and the identification and structuring of the financing depend on a set of prior decisions of the Romanian authorities.

In the first quarter of 2021, the Board of Directors of ANN, in applying the mandate granted by the shareholders by Resolution no. 8/June 12, 2020 of the Extraordinary General Meeting of Shareholders of SNN, to initiate the necessary endeavors for analyzing and crystalizing the strategic options on building new energy production capacities from nuclear sources, will submit for the approval of the General Meeting of Shareholders the new Strategy for continuing the Project for Units 3 and 4 of Cernavoda NPP and the measures for its implementation.



By Resolution no. 3/10.04.2019 of the Ordinary General Meeting of Shareholders of SNN no. 3/10.04.2019, the following were approved:

- the financial and non-financial performance indicators that will form the annex to the contract of mandate of non-executive directors;
- the equivalent value corresponding to the annual variable component of the remuneration of non-executive directors of the company, amounting to 12 monthly fixed allowances;
- the form of the addendum to be concluded to the contract of mandate of the company's non-executive directors.

In 2020, the Board of Directors of SNN was summoned 44 times in order to take the necessary decisions for the management of the company according to the attributions established by the SNN Articles of Incorporation, by the Corporate Governance Regulation and by the Organization and Development Regulation of the BoD Meetings, 3 meetings took place with the members' attendance, 19 by electronic vote and 22 by teleconference.

The preponderance of the meetings of the Board of Directors organized by teleconference is given by implementing all the necessary measures for avoiding the spread of COVID 19 in the context of the pandemic.

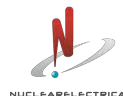
Attendance of the members of the Board of Directors at the meetings organized with physical presence and those organized by teleconference depending on the members' mandate term, including revocation.

BoD Members	Attendance meetings (3)	Teleconference meetings (22)
Iulian-Robert Tudorache (mandate end date 24.08.2020)	1/2	15/15
Elena Popescu	2/3	19/22
Teodor Chirica	2/3	19/22
Cosmin Ghita	3/3	22/22
Mihai Anitei	3/3	20/22
Remus Vulpescu	3/3	21/22
Cristian Gentea (mandate end date 19.11.2020)	2/3	17/19

According to the provisions of the SNN Articles of Incorporation, the Corporate Governance Regulation and the Organization and Development Regulation of the BoD Meetings, the BoD members assigned representation mandates to other members of the BoD for the meetings they couldn't attend in person or over the phone, making sure they are represented and complying with the quorum requirements. The BoD meetings of SNN are valid according to the hereby majority of its members.

As of 31.10.2019, the secretary of the Board of Directors is Mrs. Oana Andrusca, PR Specialist within SNN. In 2020, the Secretary of the Board of Directors is Mrs. Oana Andrusca, Public Relations Specialist within SNN.

Attendance of the members of the Board of Directors at the 17 attendance meetings, depending on the members' term



NUCLEARELECTRICA



Advisory committees on the level of the Board of Directors

According to the Articles of Incorporation of the Company and in compliance with GEO 109/2011, the Board of Directors of SNN created 4 advisory committees, made up of at least 2 Board members.

The Advisory Committee for Strategy, Development and Large Investment Projects

This committee was established according to Art. 34 of GEO no. 109/2011, by Resolution no. 27 of the Board of Directors of 26.08.2013.

The Advisory Committee for Nuclear Safety

This committee was established according to Art. 34 of GEO no. 109/2011, by Resolution no. 27 of the Board of Directors of 26.08.2013.



The Advisory Committee for Nomination and Remuneration

This committee was established according to Art. 34 of GEO no. 109/2011, by Resolution no. 7 of the Board of Directors of 26.04.2013.

The Advisory Audit Committee

This committee was established according to Art. 34 of GEO no. 109/2011, by Resolution no. 8 of the Board of Directors of 30.04.2013.

Advisory committees on the level of the Board of Directors

The Advisory Committees have the task to develop analysis and draft recommendations for the Board of Directors, in specific fields, with the obligation to periodically forward activity reports of the Board of Directors members.

The main responsibilities of the Advisory Committees are provided in the Organization and operation Regulations approved by the BoD and available on the SNN site.

Each Advisory Committee has appointed a secretary and a president.

By the Resolution of the Board of Directors no. 210/06.12.2019, the chairmen of the Consultative Committees are the following directors:

The Advisory Committee for Nomination and Remuneration	Remus Vulpescu
The Advisory Audit Committee	Remus Vulpescu
The Advisory Committee for Nuclear Safety	Cristian Gentea
The Advisory Committee for Strategy, Development and Large Investment Projects	Elena Popescu



Nuclear security policy

Permanent maintenance of a nuclear security level in all phases of performance and exploitation of the nuclear objectives and installations is of vital importance and represents the first priority for SNN.

Nuclear security policy

Permanent maintenance of a nuclear security level in all phases of performance and exploitation of the nuclear objectives and installations is of vital importance and represents the first priority for SNN.

SNN developed 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 provides 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.



Nuclear security as a field is a set of technical and organizational measures designed to:

- provide the operation of the nuclear plants under safety conditions;
- prevent and limit the damage thereto;
- provide the protection of the personnel, the population and the environment against radiation or radioactive contamination

Nuclear security policy



The high level of nuclear safety is ensured by the design, construction and operation of the nuclear installations. The risk generated by the nuclear fuel in the reactors is minimal 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.

The nuclear security philosophy of CANDU power stations is based on the “in-depth defense” concept, which ensures a gradual protection in case of the occurrence of equipment malfunctions, human errors, transitory conditions anticipated in operation or accidents, including in case of serious accidents. In order to implement this concept, the project provides several successive protection barriers against the uncontrolled release of radioactive materials in the environment. Besides the five major barriers against the release of fission products to the population from a CANDU power station: the fuel matrix, the fuel sheath, the chamber of the primary circuit, the room of the envelope and the exclusion area, the system project included passive or active characteristics, designed to prevent or limit the consequences of process damage or accident sequences, which could thus lead to releases of radioactive materials in the environment.



Nuclear security policy



Up to present date, no CANDU type NPP recorded events or accidents posing a threat to the health and security of the population. In supplement of the measures intended for the fully safe operation of the plant, planning and preparation for emergency situations is a prerequisite for the authorization of the operation of a nuclear power plant. Within Cernavoda NPP, the emergency preparedness is verified and improved by quarterly, yearly or general drills and exercises (once every 3-4 years).

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 is to be reviewed based on transparent and extended risk assessments referred to as “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.

Cernavoda NPP, along with AECL Canada and ANSALDO Italy, issued the “Reassessment report of nuclear security margins”.

The assessment made proves the fact that Units 1 and 2 at Cernavoda NPP comply with the nuclear security requirements established by the project and that they can face severe earthquakes and floods, as well as the total loss of electrical energy and cooling water supply. Moreover, methods and procedures were planned for managing possible severe accidents. Methods to prevent and mitigate the consequences of accidents which may determine the melting of the active area were also identified.

To date, no CANDU-type nuclear plant has recorded any accidents that threaten the safety of the population.

Nuclear security policy

In order to provide a good coordination with the relevant Local Public Authorities in terms of the response in emergency situations, Cernavoda NPP created two important facilities for Cernavoda town, namely: Local Center for emergency Situations of the Cernavoda City Hall and Personnel Decontamination Area, within the Town Hospital from Cernavoda.

In addition, a large number of employees take part in various training courses, evaluations, benchmarking, working groups, seminars both in the country and abroad, especially those of international organizations such as IAEA, WANO, COG, FORATOM, and so on. At the same time, the Company is focusing on the continued development of its employees, especially in terms of nuclear security, risk management and quality assurance.



CANDU System:

- Thermal power 2062 MW(t);
- Gross electric power 706.5 MW(e);
- Internal service consumption <8%;
- Number of fuel channels 380;

- Number of loops 2;
- Number of steam generators 4;
- Pressure (D2O) in the primary circuit 9.89 MPa;

- Temperature at the outlet of the primary circuit 310 0C;
- Saturated steam pressure (H2O) 4.6 MPa;
- Supply water temperature 187.20 0C.



Nuclear security policy



The CANDU reactor consumes natural uranium, using heavy nuclear water (isotopic content over 99.75% D2O) as moderator and cooling agent, in two independent, separate, closed-circuit systems.

In the 4 steam generators, the heat in the primary circuit is taken over by the light water from the secondary circuit, by turning it into saturated steam. It expands in the turbine formed from a medium pressure body and 3 low pressure bodies, producing the mechanical energy required to actuate the

electric generator.

On exiting the turbine, by extracting the residual heat with the help of cooling water taken from the Danube, the steam is condensed. The circuit is resumed by repumping the condensate in order to supply the steam generators.

Environment protection activity

Since the commissioning of Units 1 and 2 of Cernavoda NPP, the emission into the atmosphere of 170 million tons of CO₂ has been avoided.



Monitoring CO2 emissions

- By the normal operation of the nuclear units, greenhouse effect gas is not released, on the contrary, since starting up Units 1 and 2 of Cernavoda NPP, we have avoided the release into the atmosphere of 170 million tons of CO2
- Annually, Units 1 and 2 of Cernavoda NPP avoid the release of 12 million tons of CO2 into the atmosphere, thus contributing to the reaching of the environment targets.

Zero CO2
emissions in
operation

Effects on the economy

**170 million
tons**

Reduction of CO2 emissions in Romania since the commissioning of Units 2 and 3 Cernavoda NPP

**12 million
tons**

Annual emission reduction due to the operation of Cernavoda NPP

18%

Nuclear energy production in Romania: 10,346,759 MWh, 93.86% capacity factor U1, 89.18% capacity factor U2

33%

The share of nuclear energy in CO2-free energy

Environment protection activity



Currently, the Company owns certifications for environment protection system, as follows:

Cernavoda NPP Branch

(i) The environment authorization for S.N. Nuclearelectrica S.A. - NPP Cernavoda branch - Unit 1 and Unit 2 of the Nuclear Power Station of Cernavoda issued by Government Resolution no. 84/15.02.2019, published in Official Gazette no. 152/26.02.2019. The Authorization covers all the assets and activities related to the operation of NPP Cernavoda Units 1 and 2, including both the nuclear component of the plant and the classic one.

(ii) The Authorization regarding the greenhouse gas emissions no. 83/February 01, 2013, revised on November 06, 2019, issued by the National Agency for Environment Protection for the period 2013-2020, which states that the Startup Thermal plant, the Backup Diesel Groups and the Emergency Diesel Groups of each unit as well as the motor pump of the fire extinguishing system fall under the legislation regarding the reduction of greenhouse gas emissions.

(iii) Water Management Authorization no. 131/18.06.2019, no. 1 on "Water supply and wastewater disposal for Units 1 and 2 of Cernavoda Nuclearelectrica Power Plant" valid until 30.06.2021.

(iv) Water Management Permit no. 230/December 04, 2019 issued by the National Administration "Romanian Waters" on "Cernavoda Spent Fuel Storage Facility (DICA)" valid until 30.06.2022. By means of this permission, the National Administration "Romanian Waters" gave the Company the right to use hydraulic structures and receptors for drainage of rainwater from the surface Repository Spent Fuel and evacuate rainwater Valley Cismelei, provided that quality indicators related to this element radioactive respect the limits set by CNCAN.



Environment protection activity



FCN Pitești Branch

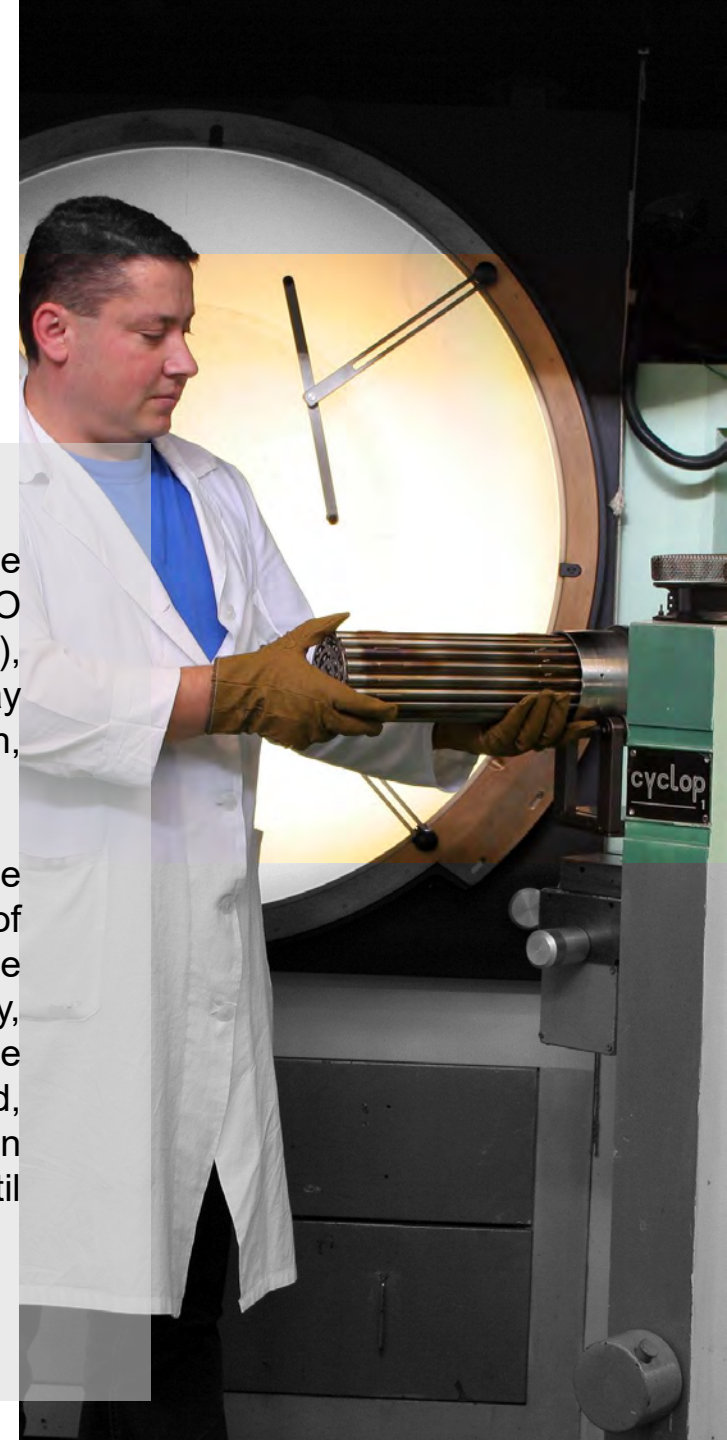
Environment authorization - operation of NFP Pitesti branch issued by Government Resolution no. 24/2019 published in the Official Gazette of Romania no. 87bis/04.02.2019.

The Company holds certificates on environmental management system, as follows:

(a) Certificate no. 56 on the Environment Management System of SNN - Cernavoda NPP Branch for the production of electrical and thermal energy, using nuclear resources and support and related

activities, according to the provisions of standard SR EN ISO 14001:2015 (ISO 14001:2015), issued by IQNet and SRAC on May 7th, 2019 and valid until April 24th, 2022.

(b) Certificate no. 4309 on the Environment Management System of SNN – Pitesti NFP branch for the nuclear fuel processing activity, according to the conditions from the EN ISO 14001:2015 standard, issued by IQNet and SRAC on October 2nd, 2019 and valid until November 4th, 2022.



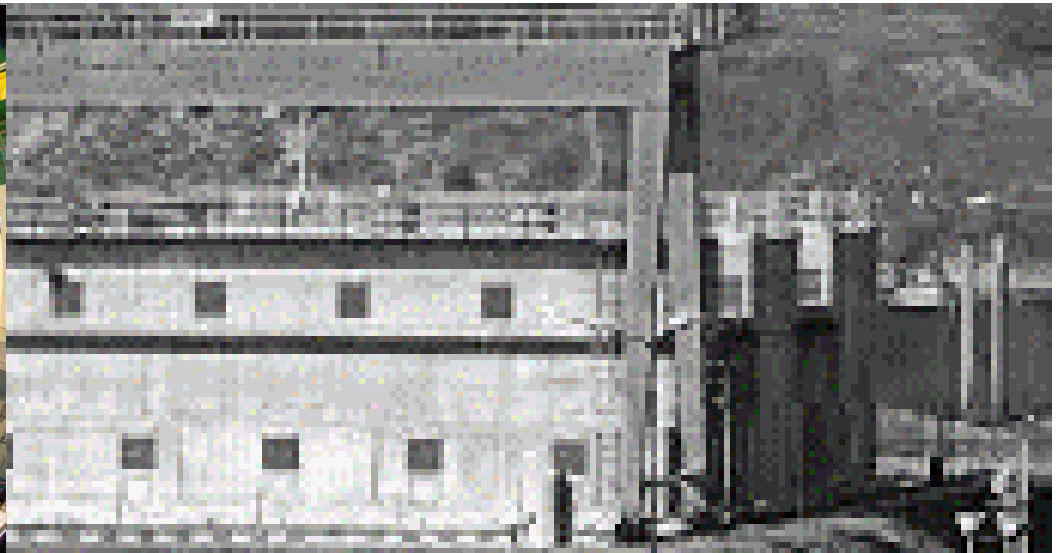
The total volume of solid radioactive waste, for both units of NPP Cernavoda, generated in 2020, was 60.07 m³. In total, until the present, in 1996 - 2020, the total volume of solid radioactive waste, for both units, is of 1005.94 m³. The waste is stored within the protection fence of CNE Cernavoda, inside the Intermediary Storage for Solid Radioactive Waste.

The impact of the operation of the Power Plant and of the nuclear fuel plant on the environment is constantly monitored and reported in accordance with the requirements of the operational and environment permits. For both branches, the Company observed in 2020 the limits for pollutants set in the environmental permits.

Over the period January 1st, 2020 – December 31st, 2020 within SNN and the branches thereof, there were no events with impact on the environment, the population and its own personnel and that of the contractors.

All the environmental reports were drafted and sent by the agreed deadlines, according to the provisions in the permits, protocols and additional requests.

According to the Investors' Agreement, SNN was responsible for obtaining the environmental approval for the investment "Continuation and completion of the works at Units 3 and 4 of Cernavoda NPP". The procedure for obtaining the environmental approval was started in 2006 and ended in September 2013, by the issue of the environmental approval. According to the specific environmental law for nuclear objectives, the environmental approval was issued by Government Resolution no. 737/2013.



Environment protection activity

Cernavoda NPP's policy for managing the fuel used

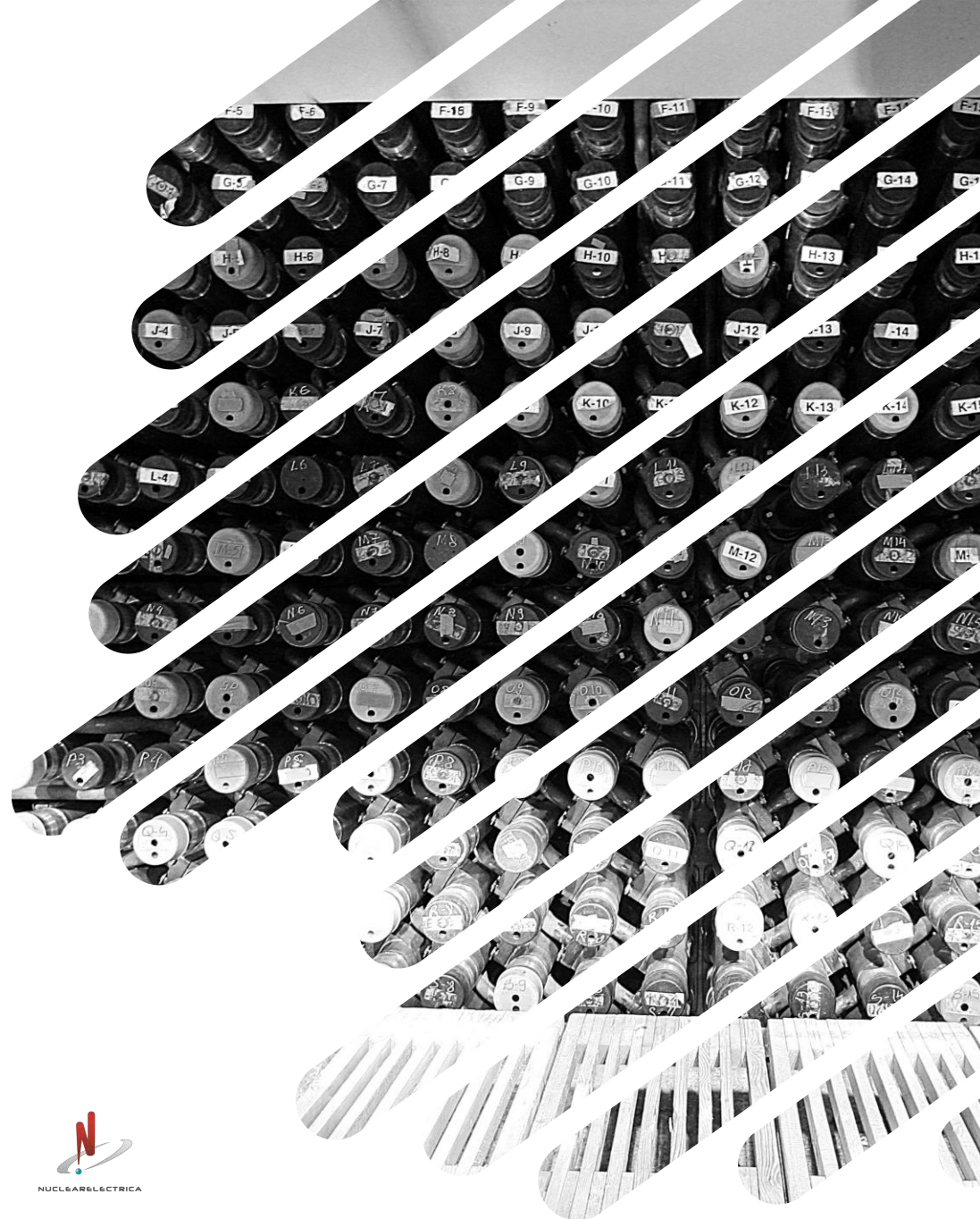
- a) Wet storage in the used fuel pool of the unit for a period of minimum 6 years;
- b) Dry storage for spent fuel in intermediate storage for a period of 50 years.

Spent Fuel Storage Facility ("DICA") is on the CNE Cernavoda site, transport being made on an internal road that allows maintenance of physical protection systems integrated.

The warehouse is gradually built, according to DICA Strategy for long-term development. Up to the present date, there are 11 MACSTOR 200 modules, with a capacity of 12,000 bundles per module.

In 2020, 6000,000 fuel bundles were transferred to the Intermediary Burnt Fuel Warehouse from Unit 1 and 6000 bundles from Unit 2.

FCN Pitesti monitors the gaseous radioactive effluents in the atmosphere through the dispersion chimneys as well as the liquid effluents, in accordance with the conditions in the permits. According to these conditions, FCN Pitesti may release in the atmosphere a volume of radioactive gaseous effluents of maximum 109 m³/year. The volume of gaseous radioactive effluents released in the atmosphere in 2020 represented 78.8% from the authorized volume.





Cernavoda NPP's policy for managing the fuel used

NFP Pitesti transferred in 2020 a volume of 1050 m³ of liquid radioactive effluents to the Cleaning Station of the Nuclear Research Institute (SE-ICN), which represented 52.5% of the maximum authorized volume.

A volume of 440 m³ of radioactive liquid waste was transferred for treatment to the Radioactive Waste Treatment Station of the Nuclear Research Institute (STDR-ICN).

13,303.8 kg of non-burnable radioactive solid waste (DSRN) and 4,653.1 kg of burnable radioactive solid waste (DSRI) were generated. Three transfers of non-burnable radioactive solid waste (DSRN) were performed to the final storage facility for low-level radioactive solid waste from CNU, Feldioara branch, the amount of 11,762.5 kg DSRN. Also, 3,749.1 kg of burnable radioactive solid waste (DSRI) were transferred for treatment by incineration to STDR-ICN Pitesti.

Environment protection activity

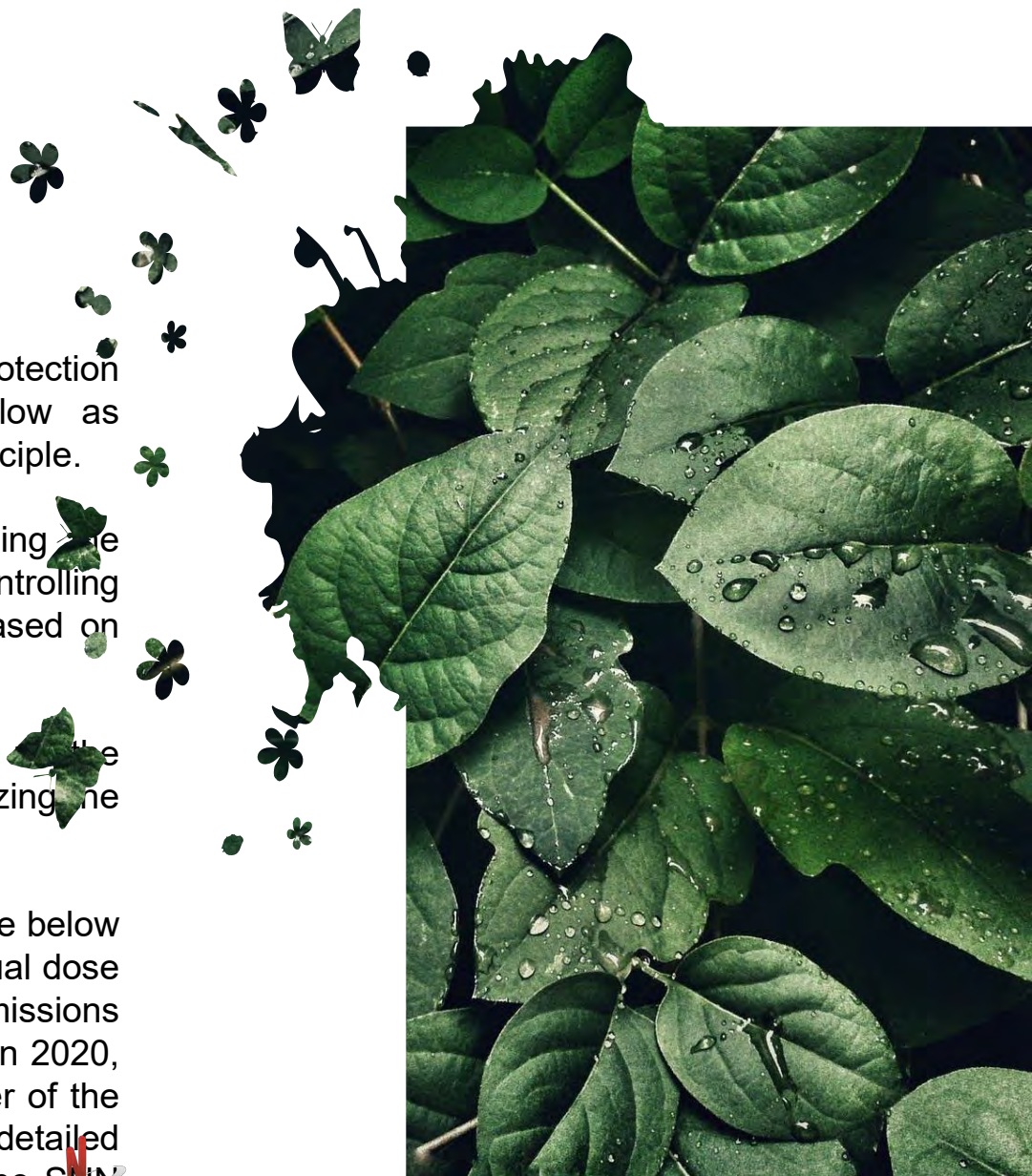
Radiation protection program

The main objective of SNN operational radiation protection program is to maintain professional exposure as low as reasonably achievable in compliance with the ALARA principle.

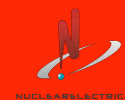
The efficiency of the NPP Cernavoda's policy regarding the ALARA principle is being monitored by determining, controlling and periodically reporting the performance indicators based on internal and external operational experience.

The Radiation Protection performance indicators show the efficiency of the Radiation Protection programs in optimizing the personnel exposure to radiations.

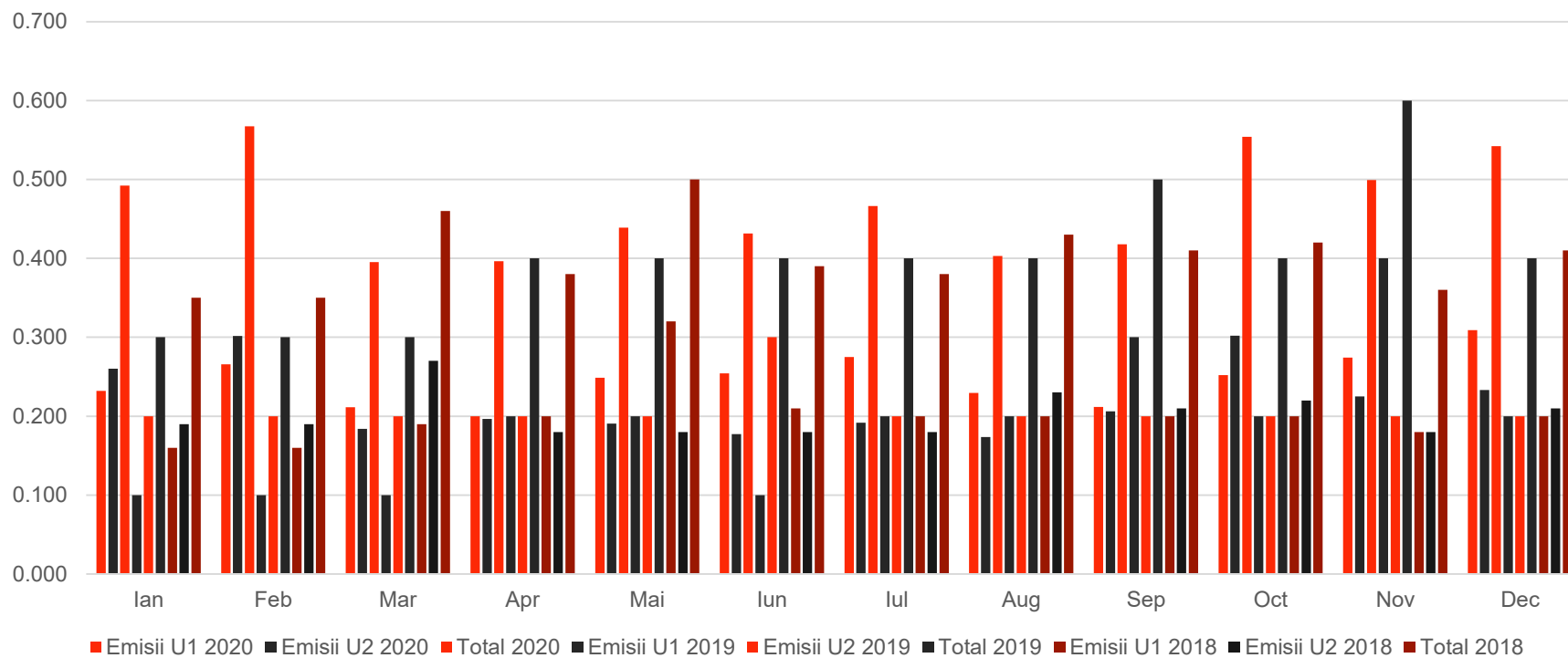
The radioactive emissions in water and air were kept quite below the authorized limits for the Power Plant. The actual annual dose for a person in the critical group, due to the radioactive emissions in the environment (Unit 1 and Unit 2) was 0.0056 mSv in 2020, whereas the annual average dose received by a member of the public in the natural background is of 2.4 mSv. More detailed information on the radiological impact are provided by the SNN report - "Environmental Report"



Environment protection activity



Radioactive emissions in the environment U1 + U2 in 2020, 2019 and 2018 (microSv)



Environment protection activity



In 2020, the achieved collective dose was of 719.51 mSv/employee, the annual average dose for employees with recordable doses was of 0.99 mSv, and the individual maximum dose was of 7.5 mSv. The legal limit for the effective dose for the professionally exposed workers is of 20 mSv/year, and the administrative limit at NPP is 14 mSv/year. Neither of these limits was exceeded.

At the end of 2020, the internal collective dose was of 185.51 mSv/employee, representing 25.8% of the total dose within the Power Plant.

The Radioprotection Department periodically elaborates and sends reports on the evolution of the collective doses and of the ALARA performance indicators, thus raising the involvement of the personnel of the Power Plant in the control and optimization process for the professional exposure to ionizing radiation. The achievement of these goals is monitored via the ALARA process and the ALARA committees operate with excellent results. With an average dose per unit of 360 mSv/employee, Cernavoda NPP remains, according to the information to date, one of the highest performing power plants in the CANDU group.

The radioprotection program of the NFP Pitesti branch has as goals to maintain a very low exposure to ionizing radiation, individual radiological monitoring and of the labour environment in compliance with the applicable law and the requirements in the operating permits issued by CNCAN.

For the external exposure to ionizing radiations, the entire personnel of NFP Pitesti is monitored using Thermal-luminescent Dose-meters (TLDs) measured within the Personal Radiation Protection and Dose-meter Laboratory of NFP (LRDP-NFP), assigned by CNCAN as a certified dose-meter authority with assigning certificate NFP ODD06/12/2020 valid for the period October 27, 2020 – October 26, 2025.

Environment protection activity

In 2020, the collective dose of NFP was 494.038 mSv/employee, out of which the collective dose following the external exposure was 444.772 mSv/employee. The collective dose following the internal exposure (49.266 mSv/person) represented approximately 10% of the collective dose of NFP for 2020. The individual average annual dose was 1.27 mSv/year, a dose representing 8.5% of the administrative control limit for the actual individual annual dose of the professionally exposed personnel imposed by NFP Pitesti (LCA-15 mSv).

NFP Pitesti manufactured in 2020 a volume of 10,800 bundles with natural uranium dioxide. Out of these, 10,080 bundles were delivered to NPP Cernavoda, for the 2 units in operation, as follows: 5,040 bundles of nuclear fuel to Unit 1 and 5,040 bundles of nuclear fuel to Unit 2.

The nuclear fuel malfunction rate in 2020 was 0% for Unit 1 and 0% for Unit 2. For 2020, the average discharge combustion degree was 166,617.4 MWh/kg U for Unit 1, and 180,562 MWh/kg U for Unit 2. Thus, the high quality and performance of the nuclear fuel were validated during the operation of the 2 reactors.

FCN Pitesti continued to monitor both the participating personnel and the means of transport, with the purpose of the correlated assessment of the doses, reporting on a yearly basis to CNCAN the status thereof, and, after each transport, it elaborated a report on the performance mode thereof.

Environment protection activity

Research and development activity

Although the Company is not directly involved in any research and development activities, it is a member of various organizations and associations.

Operating authorizations and licenses

The company carries out its activity through its subsidiaries according to the following main categories of specific authorizations, special licenses and rights:

1 Site authorization no. I/605/September 30th, 1978, issued by the State Committee for Nuclear Power;

3 Licenses issued by the National Energy Regulatory Authority (ANRE);

2
4

2 Authorizations in the nuclear field issued by the National Commission for Nuclear Activities Control (CNCAN);

4 Other authorizations.



Environment protection activity

Site authorization no. I/605/September 30th, 1978, issued by the State Committee for Nuclear Energy

The site authorization was issued for Cernavoda site for the construction of a CANDU-PHWR 4x660MWe nuclear power plant, made up of four nuclear reactors. The authorization was issued according to Law no. 61/1974 and the Nuclear Safety Norms for “Nuclear reactors and nuclear power plants” dated in 1975 and provides the main technical characteristics of the nuclear power plant.

Authorizations in the nuclear field issued by CNCAN

Pursuant to art. 8 par. 8 (1) of the Law no. 111/1996, for the development of the activities and/or use of the sources contemplated by this law, the operators must obtain specific authorizations issued by CNCAN, in full observance of the specific authorization procedure specific to each type of activity or source. At the end of 2019, the following authorizations in the nuclear field are in force for SNN:

Authorizations issued by CNCAN in the nuclear field for Cernavoda NPP Subsidiary

Nuclear safety authorization for the operation and maintenance of Cernavoda Nuclear Power Plant, Unit 1, authorization no. SNN Cernavoda NPP U1 – 01/2013. The authorization was issued for a period of 10 years, starting with May 1st, 2013 until April 30th, 2023;

Nuclear safety authorization for the operation and maintenance of Cernavoda Nuclear Power Plant, Unit 2, authorization no. SNN CNE Cernavoda U2-01/2020. The authorization was issued for a period of 10 years, starting with December 8, 2020 until December 7, 2030;



- Building permit in the nuclear field no. AC DICA – 02 / 2020 for building modules 12, 13, 14, 15, 16, 17 of the Intermediary Warehouse for Burnt Fuel within the Branch of Cernavoda NPP. Nuclear security authorization for the operation and maintenance of Modules 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10 of the Intermediary Warehouse for Burnt Fuel, authorization no. SNN DICA 05/2019. The authorization was issued on June 19, 2020 and is valid until June 19, 2021;
- Authorization for performing activities in the nuclear field TRANSPORTATION OF RADIOACTIVE MATERIALS No. CNE CERNAVODA TRANSPORT_06/2020. The authorization was issued on March 11, 2020 and is valid until March 10, 2025
- Authorization for the quality management system for the operation, design, supply, repair and maintenance and use of software products, in the nuclear field. Authorization no. SNN CNE Cernavoda - 01/2019 is issued for a period of 2 years, from May 01, 2019 until April 30, 2021.
- Radiological security authorization for a product - CNCAN authorized Product - Waste form - solidified liquid radioactive waste by method NOCHAR no. AT 01/ 2017. The authorization was issued on February 15, 2017 and is valid until February 14, 2022;
- Authorization for performing activities in the nuclear field for HOLDING AND USING radiation sources within NPP Cernavoda, no. VP 01 /2017. The authorization was issued on January 01, 2020 and is valid until December 31, 2024;
- Assignment certificate no. LI 01_LDI/2020 whereby CNCAN assigns the individual dosimetry laboratory of NPP Cernavoda as testing laboratory. The certificate was issued on January 01, 2020 and is valid until December 31, 2024;
- Assignment certificate no. OD 02_LDI/2020 whereby CNCAN assigns the individual dosimetry laboratory of NPP Cernavoda as a dosimetric laboratory. The certificate was issued on January 01, 2020 and is valid until December 31, 2024;

Environment protection activity

- Assignment certificate no. CNE LCM ODN 07/2018 whereby CNCAN assigns the environment control laboratory of the radioprotection department of the branch of NPP Cernavoda - SNN SA as a notified dosimetric body. The certificate was issued on November 01, 2018 and is valid until November 08, 2021;
- Assignment certificate no. CNE LCM LI 03/2019 whereby CNCAN assigns the environment control laboratory of the radioprotection department of the branch of NPP Cernavoda - SNN SA as a notified testing laboratory. The certificate was issued on June 01, 2019 and is valid until May 31, 2022;
- Notification no. LI 10_LC CNE /2020 whereby CNCAN assigns the chemical laboratory of the branch of NPP Cernavodă of SNN SA as a notified testing laboratory. The authorization was issued on October 06, 2020 and is valid until October 05, 2025;
- Assignment certificate no. OPP 03/2020 whereby CNCAN assigns NPP Cernavoda as a "Personnel training body". The certificate was issued on July 24, 2020 and is valid until January 08, 2023;
- Assignment certificate no. LI 08_SCR/2020 whereby CNCAN assigns the radiation control service within the radioprotection department of NPP Cernavoda within SNN SA as a testing laboratory. The certificate was issued on December 20, 2019 and is valid until December 19, 2024;

Authorizations issued by CNCAN in the nuclear field for the NFP Pitesti branch:

- Authorization for the Quality Management System in the nuclear field according to Art. 24 of Law no. 111/1996, for production activities in the nuclear field
 - no.18035, valid from 18.09.2018 to 17.09.2020
 - no. 20-026 valid from 18.09.2018 to 17.09.2020;





Environment protection activity

- **9 authorizations for the performance of activities in the nuclear field:**

- i. Authorization LP/007/2020 for owning ionizing radiation sources, radiologic installations with ionizing radiation sources, devices generating ionizing radiations, nuclear installations for processing and manufacturing nuclear fuel, nuclear raw materials, nuclear fuel, radioactive waste, materials of nuclear interest, equipment and devices provided in Government Decision no. 916/2002, valid from January 31st, 2020 until January 30th, 2022;
- ii. Authorization LP/008/2020 for the use of closed ionizing radiation sources, radiological installations, equipment and devices generating ionizing radiations, valid from January 31, 2020 until January 30, 2022;
- iii. Authorization LP/009/2020 for handling closed radiation sources, radiological installations with closed sources and radioactive waste, valid from January 31, 2018 until January 30, 2020;
- iv. Authorization LP/010/2020 for the processing of nuclear raw materials, valid from January 31st, 2020 until January 30th, 2022;
- v. Authorization LD/011/2020 for the manufacture of nuclear fuel valid from January 31st, 2020 until January 30th, 2022;
- vi. Authorization LD/012/2020 for the temporary storage of nuclear

raw materials, nuclear fuel and radioactive waste, valid from January 31st, 2020 until January 30th, 2022;

vii. Authorization LP/013/2020 for the supply of nuclear raw materials, nuclear fuel, radioactive waste, materials of nuclear interest and double-use materials, valid from January 31st, 2020 until January 30th, 2022;

viii. Authorization FCN Transport_20/2018 for the transportation of radioactive materials, valid from 10.01.2019 to 09.01.2024;

ix. Authorization AN/081/2017 for ownership of unpublished information, valid from 31.03.2017 to 28.11.2021.

- By Assignment Certificate no. FCN_ODD 12/2020 , CNCAN updated the appointment of the Radiation Protection laboratory and dosimeter personnel within NFP Pitesti as Dosimetry Body, valid from 27.10.2020 24.10.2017 to 26.10.2025.

- By Assignment Certificate no. NFP ODD06/06/2017, CNCAN updated the appointment of the Radiation Protection laboratory and dosimeter personnel within NFP Pitesti as Dosimetry Body, valid from 24.10.2017 to 23.10.2020.

Environment protection activity

Authorizations in the nuclear field for the main office:

- • Authorization for the quality management system for management activities in the nuclear field. Authorization no. SNN EX-01/2019 was issued for a period of 2 years, from 01.05.2019 to 30.04.2021;
- • Authorization no. PD/205/2018 for ownership of heavy water for Units 3 and 4, valid from 26.10.2018 to 25.10.2023.
- CNCAN authorized personnel. For Cernavoda NPP branch, the company holds 14 CNCAN permits for management personnel, 6 CNCAN permits for personnel with specific training positions and 52 CNCAN permits for operational staff in the control rooms of the two Units. For the NFP Pitesti branch, the Company holds 32 level-2 permits for exercising nuclear activities (according to NSR-07) and 2 permits for exercising activities issues by CNCAN for management personnel (according to NSN-23). The company also has 5 permits for management personnel from the Head Office and 4 approvals for members of the Board of Directors.



Environment protection activity

Licenses issued by ANRE

According to the Regulation for the granting of licenses and authorizations in the electric power sector approved by the Government's Decision no. 540/2004, the supply of electric power, the production of electric and thermal power in cogeneration are performed according to certain licenses issued by ANRE in this respect.

On the date of the current report, the company holds the following licenses issued by ANRE:

a) License no. 5/December 3rd, 1999 for the production of electric power granted by the ANRE Decision no. 80/ December 3rd, 1999;

b) License no. 244/26.03.2001 for producing thermal energy granted by ANRE Resolution no. 341/26.03.2001, withdrawn as at 27.05.2020 by ANRE Resolution 847/27.05.2020, replaced by License no. 2218/27.05.2020 for the commercial operation of capacities to produce thermal energy,

granted by ANRE Resolution no. 848/27.05.2020.

c) License no. 962/21.10.2010 for providing electricity granted by ANRE Resolution no. 2597/21.10.2010, expired on 21.10.2020, and replaced with license no. 2236/30.09.2020 for the activity of providing electricity, granted by ANRE Resolution 1715/30.09.2020, valid as at 21.10.2020.

The company complied, both over previous years and in 2020, with the provisions of the conditions associated to the aforementioned licenses.

Environment protection activity



License no. 5/December 3rd, 1999 authorizes the company to produce electric power by the commercial operation of the power capacities related to the electric power production units. The license came into force on December 3rd, 1999 and is valid for a period of 25 years. By the ANRE Decision no. 1683/November 1st, 2007, the license was amended to increase the installed capacity factor of the company from 706.5 MW to 1,413 MW and to approve other conditions associated to the license as well, after the commissioning of NPP Cernavoda Unit 2.

License no. 244/March 26th, 2001 authorizes the Company to perform the activity of generating thermal energy by the commercial operation of the power capacities related to the units of electrical and heating power generation consisting of two heat exchangers with a total thermal power of 40 Gcal/h and 46.51 MW. The license came into force on March 26th, 2001 and is valid for a period of 25 years. By the ANRE Decision no. 1684/November 1st, 2007, the license was amended to approve the existing conditions related to the license. SNN delivers thermal power to the local thermal power distribution company – Utilitati Publice SA Cernavoda, as well as to some end consumers in the locality of Cernavoda – economic agents, social and cultural institutions.

License no. 2218/May 27th, 2020 authorizes the Company to perform the commercial operation of the thermal power production capacity by the commercial operation of the power capacities related to the units of electrical and thermal power generation consisting of two heat exchangers with a total thermal power of 44 Gcal/h and 40 MW. The license came into force on May 27th, 2020 and is valid for a period of 25 years.

License no. 962/October 21st, 2010 for the supply of electric power authorizes the Company to perform the activity of electricity supply on the energy retail market and came into force on October 26th, 2010. By the ANRE Decision no. 2000/September 23rd, 2015, the license was amended for the extension of the validity of the license till October 21st, 2020. Starting with 21.10.2020 License no. 2236/30.09.2020 for providing electricity is valid for 10 years.

Other authorizations

- **ISCIR regulatory documents;**
- **Statements of the locations issued by the National Anti-Drug Agency;**
- **Licenses issued by ANCOM. Cernavoda NPP obtained from ANCOM 3 licenses for the use of radio-electrical frequencies;**
- **Fire safety permits;**
- **Sanitary authorizations.**



Integrated management system

SNN developed and maintains a General Management System, which complies with the provisions of Law no. 111/1996, the Quality Management Norms applicable in the nuclear field ("NMC") issued by CNCAN.

Integrated management system

Management System of SNN is authorized by CNCAN according to the Law no. 111/1996 by the Authorization of the quality management system in the nuclear field for management activities; the currently held authorization no. SNN EX - 01/2019 is valid until April 30th, 2021.

the SNN management.

The Management System developed and implemented within SNN S.A. treats in a coherent, coordinated and unitary manner the components regarding nuclear security, protection against ionizing radiation, environment protection, quality, employees' safety and health, physical protection, protection against cybernetic threats, control of nuclear guarantees, protection of classified information, planning and response to emergencies, capitalizing the produced electricity and aspects related to economic performance, and it is ensured that these requirements are not approached separately from nuclear security, as it has priority over other requirements, considerations and interests.

The implementation of the management system ensures the premises of identifying and integrating all the legal and regulation requirements , best practices and standards adopted voluntarily for the purpose of achieving the general objectives of the company and fulfilling the expectations of all the stakeholders.

The requirements of the SNN Management System apply to all activities and processes performed within SNN S.A.

The management of SNN SA has delegated to the Branches the responsibility for developing and implementing parts of the SNN Management System for the specific activities therein performed, without this leading to the reduction of its liability in terms of the overall efficiency of the system. Consequently, the Branches have developed their own Management Systems in correlation with the requirements of the SNN Management System, as well as with the legal requirements applicable to the specific field of business. The Management Systems of the Branches are reviewed and accepted by



NUCLEAR ELECTRICITY

Integrated management system

The integrated management system applied by NPP Cernavoda focuses on fulfilling the nuclear security requirements that derive from the CNCAN norms and requirements which are at the basis of issuing the operating authorization for Units 1 and 2 of Cernavoda and the burnt fuel warehouse (DICA) and is developed according to the requirements of the IAEA GSR Part2 standard and the CNCAN norms for quality management systems by voluntarily integrating management standards ISO 14001, ISO 45001, ISO 17025, ISO 27001, ISO 37001, the requirements of Regulation EMAS – Eco Management and Audit Scheme. The management system of Cernavoda NPP is authorized by CNCAN according to the provisions of Law no. 111/1996 for “Activities of operation, design, supply, repair and maintenance, use and maintenance of software products in the nuclear field” (CNCAN authorization no. SNN NPP Cernavoda – 01/2019, valid until April 30th, 2021.

NPP Cernavoda has established and implemented a Management System that integrates the requirements from various norms and standards applicable to the nuclear industry, such as those regarding Nuclear Safety, Quality Assurance, Environment Management, Management of Occupational Safety and Health, Physical Protection, Financial Accounting, etc. This system is applicable to all the activities performed by NPP Cernavoda for operating units 1 and 2 at Cernavoda, the burnt fuel warehouse and the intermediary warehouse for radioactive solid waste (DIDSR).

The compliance with the requirements of International Standards ISO 14001 and OHSAS 18001 was recertified by the certification body SRAC in 2019 (validity until 24.04.2022 for the certificate of compliance with ISO 14001:2015 and 11.03.2021 for the certificate of compliance with OHSAS 18001:2007).



Integrated management system

FCN Pitesti Branch has developed and implemented an Integrated Management System which complies with the provisions of Law no. 111/1996, Rules for Systems Management CNCAN, integrating and requirements of Canadian standard CAN 3-Z299.2. The component of the Quality Management System is authorized by CNCAN by Authorization no. 20-026 (valid until 17.09.2022).

The integrated management system applied by NFP Pitesti focuses on fulfilling the requirements that derive from the CNCAN norms and requirements which are at the basis of issuing the operating authorizations associated to manufacturing nuclear fuel and is developed according to the requirements of Canadian standard CSA N299.2-16 and the CNCAN norms for quality management systems by voluntarily integrating management standards ISO 14001, ISO 45001, ISO 17025, ISO 37001 and the requirements of Regulation EMAS – Eco Management and Audit Scheme. The management system of NFP Pitesti is authorized according to the requirements of

law 111/1996 for “Manufacture activities in the nuclear field, class 2 of application granted to the management system” (CNCAN authorization no. 20-026, valid until 17.09.2022)

The branches NPP Cernavoda and NP Pitesti hold compliance certificates of the Management System with the requirements of standards ISO 14001 “Environment management systems” and ISO 45001 “Occupational safety and health management systems”.

Both sources are registered in the environment management community system EMAS according to (EC) Regulation no. 1221/2009 of the European Parliament and Council of November 25, 2009 on the voluntary participation of organizations in an environment and audit management community system (EMAS) and (EU) Regulation 2017/1505 of the Commission of August 28, 2017 to amend annexes II, II, III.

On the level of SNN SA, headquarters and branches of NPP Cernavoda and NFP Pitesti, an anti-bribery management system was implemented and certified according to standard ISO 37001:2016. The integration of the anti-bribery system in the management system of SNN SA contributes to the development of the culture of integrity and transparency and a business environment that promotes ethics and conformity.

The compliance with the requirements of International Standards ISO 14001 and OHSAS 18001 was recertified by the certification body SRAC in 2019 (validity until 04.11.2022 for the certificate of compliance with ISO 14001:2015 and 11.03.2021 for the certificate of compliance with OHSAS 18001:2007).

Besides, other components of the Integrated Management System are developed and implemented as well (for example Physical Protection, Radiological Safety, Nuclear warranties etc.). The development and implementation of the components of NFP Integrated Management System decisively contributed to the nuclear fuel quality proved by a very good combustion degree and zero failure rate.

Considering the firm commitment of the company managers for promoting ethical behavior in professional activities and impeccable conduct regarding the performance of business activities, the company decided to implement standard ISO 37001 - Anti-bribery management system. In March 2020 SNN obtained the certification of the anti-bribery system according to International Standards ISO 37001:2016.

This effort is also justified by the fact that most multinational companies and those representative as regards international turnover are extremely selective in terms of choosing their business partners, placing more and more the emphasis on requiring ethical and compliance safeguards to avoid image risks and related costs in case of potential integrity-related incidents.

The implementation of the ISO 37001 standard involved a number of complex activities, including the integration and harmonization of specific policies, procedures and instructions with those already applicable at the company level, so that the resulted regulatory framework is coherent, supple, easy to understand and apply by all employees and business partners.

Integrated management system



Environment management policy

- Commitment for environment protection
 - Formalized in SNN objectives
- Implemented according to the management program described below



Environment management policy

The environment management process is developed and applied by the Cernavoda NPP to ensure the protection and control of the environment during the performance of activities with direct or indirect potential environmental impact.

Cernavoda NPP has established and implemented specific requirements leading to the mitigation/removal of any potentially negative impact on the environment, as a result of the performance of the activities of the plant.

The requirements set by the Cernavoda NPP derive both from the application of the regulations specific to the nuclear field and the applicable environmental legislation and from the voluntary adherence to the requirements of the ISO 14001: 2015 standard and to Regulation (EC) 1221/2009 on the voluntary participation of organizations in a Community eco-management and audit scheme (EMAS).

NPP Cernavoda received EMAS Registration Certificate no. RO-000017, valid from October 15, 2018 to October 15, 2021. This certificate represents the validation by a system acknowledged by the European Commission, of the environment performance on excellence level of the CNE Cernavoda Branch in relation to the relevant criteria of this process, regulated by Regulation (EC) no. 1221/2009 of the European Parliament and Council of November 25, 2009, amended by Regulation 1505 of August 28, 2017 on the voluntary participation of organizations in an environment management and management community system (EMAS). One of the conditions for this registration is maintaining the compliance certification with standard ISO 14001



Environment management policy

The conclusions of the annual audits carried out by the certification body demonstrate that we have a functional environmental management that is part of the organization's integrated management system, which is continually improving and it is aligned with international environmental and population protection requirements. The management of Cernavoda NPP pays particular attention to the aspects of communication and transparency towards all stakeholders: staff, population, local authorities, national authorities, NGOs, media, aiming to create and maintain a realistic picture, based on facts and concrete data that will strengthen the positive characteristic of nuclear energy given the insignificant impact on the environment.

Risks associated with the conduct of activities are identified, evaluated, recorded, and measures are provided to prevent / minimize their occurrence by implementing a risk management process.

Cernavoda NPP implements and maintains a deep defense concept, which includes technical and procedural barriers to prevent and mitigate the effects of accidents, response to emergencies, taking into account equipment-related and human performance initiators, as well as credible severe external conditions (earthquakes, floods, bad weather, etc.) that may affect the operation of the plant.

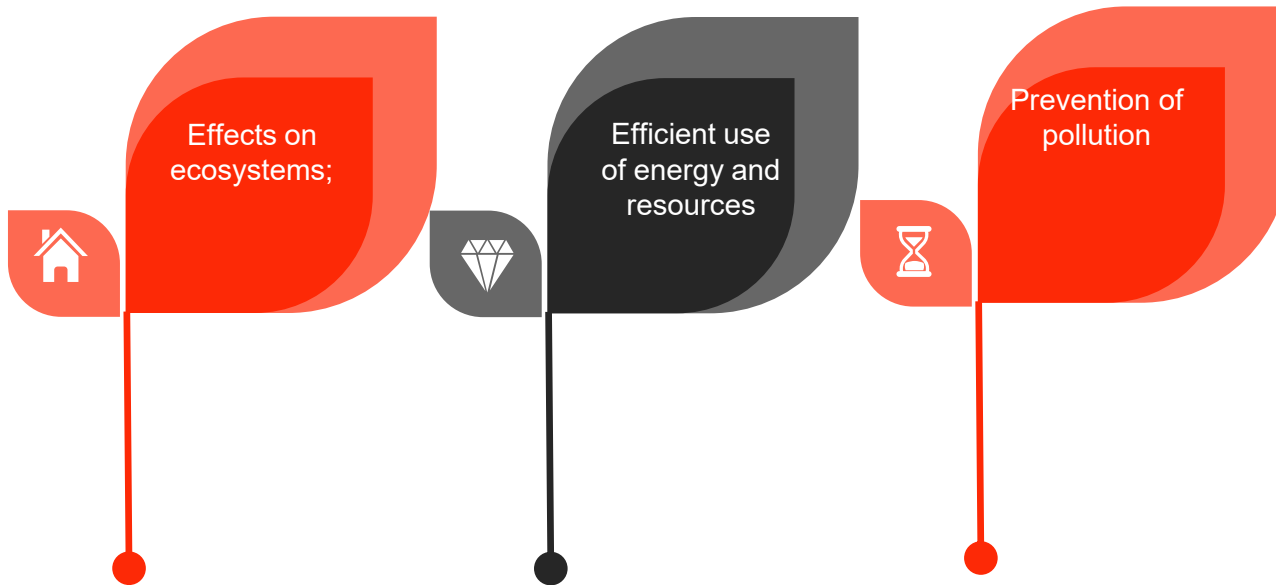


Environment management policy

Cernavoda NPP has established clear principles underlying the performance of activities that might have direct or indirect impact on the environment.

Below are listed some of them:

The preparation and performance of any activity will be analyzed in terms of:

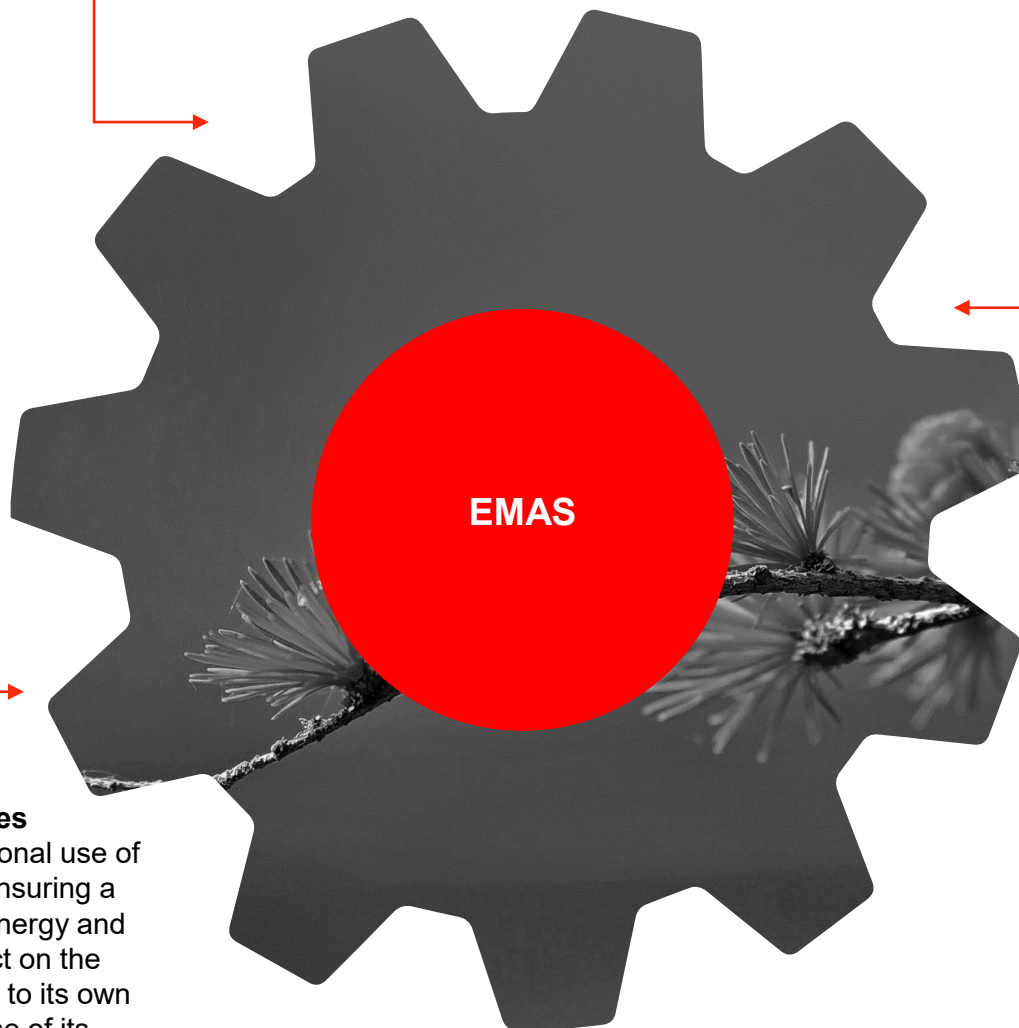


• Cernavoda NPP ensures:

- o The implementation of environmental legislative requirements in all the processes and activities of the plant;
- o The preparation, encouragement and accountability of the entire personnel for the performance of all activities so as the impact on the environment is reduced as much as possible;
- o The assessment of environmental performance and the continuous and effective communication with the interested civil organizations, the local community and regulatory and control authorities in relation to the continuous improvement of environmental performances;
- o The impact on the environment is established according to the assessment of each activity and for each individual work.

The first certification of the environmental system was obtained in 2004, maintaining it through the annual approval following the audits and the recertification every 3 years. Maintaining the certification and the EMAS registration obtained in 2018 is the proof and guarantee that the commitments assumed by Cernavoda NPP have been complied with.

Efficient use of resources
Cernavoda NPP promotes the rational use of energy and natural resources, ensuring a balance between environment, energy and economy. It prevents the impact on the environment and this relates both to its own operating activities and to those of its business partners.



Constant reporting of environment issues:

a. Cernavoda NPP reports regularly on environmental issues in compliance with EMAS Registration Certificate no. RO-000017, valid from October 15, 2018 to October 15, 2021. (page 52) EMAS reports are published separately and can be accessed on the web page here
<https://www.nuclearelectrica.ro/cne/protectia-mediului-si-a-personalului/emas/>



Environment management policy

This commitment is translated into:

Investments

Integration of the sustainable development concept into projects and investments

Legislation

Complying with the environment legislation and agreements

Performance

Continuous improvement of the environment performance.

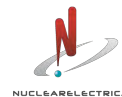
Partners

Partners are assisted in achieving their own environmental goals.

Environmental protection at Cernavoda NPP has been and is a permanent and responsible concern of all staff. Cernavoda NPP has established and implemented specific requirements leading to the mitigation of the impact on the environment, as a result of the performance of the activities of the plant.

Details of activities and results/ environmental performance are contained in the document “Environmental Statement” available to the public on the SNN website.

Environment management policy



In 2018, the Level I and II Environmental Balance Sheet and the Balance Sheet Reports were drawn up, the results and conclusions drawn by the developer validating the compliance of Cernavoda NPP Branch with the environmental protection requirements.

According to Law 132 of June 30, 2010 on the selective collection of waste in public institutions, SNN selectively collected and recycled the following waste:

Waste selectively collected in 2020	Waste selectively collected in 2019
Waste selectively collected in the branch of NPP Cernavoda: - Paper waste code 20 01 01 -15848 kg - Plastic waste code 15 01 02 - 235 kg - Glass waste code 15 01 07 - 150 kg - Metal waste code 15 01 04 - 20 kg	Waste selectively collected in the branch of NPP Cernavoda - Paper waste code 20 01 01 -22,700 kg - Plastic waste code 15 01 02 - 559 kg - Glass waste code 15 01 07 - 510 kg
Waste selectively collected in the branch of NPP Pitesti: - Paper waste code 20 01 01 -1800 kg - Plastic waste code 15 01 02 - 295 kg	Waste selectively collected in the branch of NPP Pitesti: - Paper waste code 20 01 01 - 2030 kg - Plastic waste code 15 01 02 - 480 kg
Waste selectively collected at the SNN headquarters: - Paper waste code 20 01 01 -1510 kg - Plastic waste code 15 01 02 - 69.12 kg - Glass waste code 15 01 07 - 600 kg - Metal waste code 15 01 04 - 30.72 kg	Waste selectively collected at the SNN headquarters: - Paper waste code 20 01 01 -1016.22 kg - Plastic waste code 15 01 02 - 73.36 kg



**Waste
selectively
collected**



Consulting stakeholders

SNN applies the provisions of the Aarhus and Espoo agreement on organizing public consultations regarding infrastructure projects with radiological impact. In 2020, there were no investment projects fitting into the obligation of organizing consultations with stakeholders. Also, NPP Cernavoda maintains a relationship of close cooperation with the local community of Cernavoda by exchange of information and the common resolution of community problems. The NPP Cernavoda branch organizes in cooperation with the Local Council of Cernavoda the Committee for Informing and Consulting the population in order to identify community problems and establishing common actions. Also, population information centers operate in Cernavoda and Constanta, where public events, debates and presentations are organized.



Environmental Monitoring Program at Cernavoda NPP

Commitment for monitoring environment performance

The Cernavoda Nuclear Power Plant has been developing socio-demographic studies since the early 1980s and has implemented environmental radioactivity monitoring programs.

The choice of the nuclear power plant site was done in line with the specifications of the Republican Nuclear Safety Norms, which provide both the factors to be taken into consideration when establishing the site in terms of nuclear safety, as well as the demographic criteria regarding the areas of exclusion and reduced population.

The factors that have been considered include, on the one hand, the physical characteristics of the site (seismological, geological, meteorological and hydrological), the socio-demographic and land use characteristics, on the other hand, and the reactor design features and the proposed operating mode (the use and maximum power level, nature and radioactivity inventory, technical norms and standards applied to the reactor design, nuclear security characteristics considered in the technical calculations of the facility and existing barriers in the release of radioactive materials into the environment).

In order to protect the population against the risk of exposure to radiation, around each reactor an exclusion area, with a radius of 1 km and a reduced population area of 2 km have been established.

For the most accurate estimation of the impact of the operation of the power plant on the environment, during the period 1984 - 1994 the pre-operational environmental monitoring program was carried out at the Cernavoda NPP. The measurements made within this program detected the environmental radioactivity changes that occurred following the Chernobyl accident in 1986. Starting with 1990, the values of radionuclide concentrations in the environmental factors returned to the normal values before 1986.



Emission monitoring program

- Nuclearelectrica monitors emissions (other than emissions of greenhouse effect gas) according to the radioprotection program of NPP Cernavoda
- Approximately 1200 samples from 115 locations are collected annually, in order to determine the radioactivity of the environment in the Cernavoda NPP area.
- The reports on the level of effluents in the environment are reported on a daily basis (on the radio and at the Cernavoda City Hall for public display) and on a monthly basis (at institutions)

Monitoring the radioactivity of environmental samples

The Nuclear Power Plant has implemented, starting with the commissioning of Unit 1, an environmental radioactivity monitoring program, based on the requirements of the national legislation and internationally validated practices in the nuclear industry. In compliance with international practices, the plant built and fitted its own Environmental Radioactivity Control Laboratory and established a network of sampling points or positioning continuous monitoring stations, in different locations within a radius of 30 km around the plant.

The routine environmental monitoring program elaborated at Cernavoda NPP was approved by CNCAN in 1995, after it was audited by AIEA [International Agency for Atomic Energy]. The implementation of this program commenced in March 1996.



Emission monitoring program

In terms of the content of radioactivity, the following samples are collected and analyzed:

- air (deposit on particle and iodine filters, water vapor in the air; carbon-14 in the air);
- water (water from the Danube, soil infiltration water, deep water, water from the Danube - Black Sea Canal, rainwater, drinking water);
- soil;
- spontaneous vegetation;
- fish sediment;
- meat (chicken, beef, pork);
- milk;
- vegetables (lettuce, spinach, radishes, cucumbers, tomatoes, green onions, peppers, cabbage, potatoes, green beans, aubergines);
- cereals (wheat, corn);
- fruits (strawberries, cherries, apricots, peaches, grapes);
- eggs;
- wet atmospheric deposits;
- DTLs (thermal-luminescent dosimeters that measure the integrated gamma dose for 3 months).

Approximately 1200 samples from 115 locations are collected annually, in order to determine the radioactivity

of the environment in the Cernavoda NPP area.

A network of 62 monitoring points with thermal-luminescent dosimeters (DTL) for the measurement of the gamma dose has been established around the power plant and across an area with a radius of 30 Km around the plant. Gamma spectrometry analyzes, global alpha/beta analyzes and specific assays for the detection of tritium and carbon C-14 were carried out through liquid scintillation spectrometry. Food samples for the analysis are procured from local producers or from the agri-food market in Cernavoda, Seimeni, Medgidia, Satu Nou. The results of the environment's radiological monitoring are compared with the results of the pre-operational environmental monitoring program carried out in the period 1984 – 1996. Up to now no changes in the radioactivity of the environment in the area of Cernavoda city have been detected, in relation to the period prior to the commissioning of the nuclear unit. The Environmental Control Laboratory of Cernavoda SNN is notified by CNCAN through Appointment certificate no. NPP LCM ODN 07/2018 valid until 08.11.2021, as Dosimetric Notified Body and Appointment certificate no. NPP LCM LI – 03/ 2019 valid until 31.05.2022 as a Testing Laboratory on environmental sample measurements.

Emission monitoring program



Inter-comparisons

CNCAN and in order to demonstrate the credibility of the environment measurements, the Environmental Control Laboratory participates in international intercomparison exercises.

The Environmental Control Laboratory is a member of the PROCORAD Association of France (Association for Radiotoxicological Measurements) and has been participating with good and very good results in intercomparison exercises for radioactivity measurements since 2002.

In 2005, the Environmental Control Laboratory was nominated by CNCAN as a member of IAEA's ALMERA Network (Analytical Laboratories for the Measurement of Environmental Radioactivity) and since 2006 it has participated annually in the performance tests organized within the network.

The Environment Control Laboratory participates in inter-comparison exercises periodically organized by the European Commission by the Joint Research Center laboratories.

In 2020, the Environment Control Laboratory participated in the International Intercomparative Exercises organized by COG at the Chalk River Laboratories in Canada, for dosimetry readings, and obtained very good results for the Laboratory of Individual Dosimetry, successfully meeting the acceptance criteria imposed by

national and international standards.

NPP Cernavoda is authorized (by a water management authorization) to use as cooling water from the Danube River, via the Danube - Black Sea canal, canal pond I, by the related sluice. The discharge of the cooling water is made in Danube River, under normal operating conditions, but there is the possibility of changing the discharge to Danube - Black Sea canal, canal pond II, depending on certain conditions.

For the chemical control of water from the secondary circuit of NPP, U1 and U2, specific chemical substances are used: hydrazine, morpholine.

The water treatment station produces, stores and delivers fully demineralized water for certain systems of the two nuclear-electric units. The water treatment system consists of pre-treating gross water by dosage with ferric chloride and adjuvant, then filtering, followed by the demineralization of water.

Water management program

- The NPP Cernavoda branch uses water for cooling the operating units according to water management authorization no. 131/18.06.2019, on “Supplying with water and discharging the used water for Units 1 and 2 at the Nuclear Power Station Cernavoda” valid until 30.06.2021, and water management authorization no. 230/04.12.2019 issued by the Romanian Waters National Administration for the Intermediary Warehouse for Burnt Fuel of Cernavoda (DICA) valid until 30.06.2022.
- SNN annually pays a fee to the Romanian Waters National Administration for the water quantity consumed by the power station. This program was designed and applied to check and control the quality of the water discharged from Cernavoda NPP and to demonstrate the observance of the requirements of the Environment Authorization and Water Management Authorization.



Program for the physical-chemical monitoring of the liquid effluent and non-radioactive gaseous material

- According to this program, all chemicals used for the chemical conditioning of the power plant systems are monitored in the liquid effluent.
- The treatments with control agent of the macrobiological load are carried out locally, only on the technological process water circuit, having the purpose of limiting the fixation and growth of shells in pipelines and equipment.
- The chemicals used to obtain demineralised water are monitored and neutralized prior to the discharge into the effluent.

The concentrations of all these substances in the liquid effluent fall below the authorized discharge limit.

Studies have been conducted regarding the thermal impact of the discharge of hot water into the Danube and the Danube - Black Sea Canal and the temperature of the hot water discharged is measured so that it is within the limits set in the Water Management Authorization.

The non-radioactive gaseous effluent physical-chemical monitoring program is designed to allow for the determination of the concentrations of pollutants (other than radioactive ones) in environmental factors. This requirement is specific only for continuous operation periods longer than 5 days for the stacks of the Startup Thermal Station. In the impact area of the emissions, the following pollutants are determined: carbon dioxide, sulfur oxides, nitrogen oxides, suspended particulates.

The purpose of this program is to provide accurate data on non-radioactive gaseous effluent quality to CTP chimneys to demonstrate compliance with applicable legal limits.



Program for the physical-chemical monitoring of the liquid effluent and non-radioactive gaseous material

Emissions of carbon dioxide from EU-ETS facilities falling under the greenhouse gas emissions trading scheme, according to the GES Authorization and the related monitoring plan are determined by calculation according to the applicable regulations.


Emissions of carbon dioxide from EU-ETS facilities falling under the greenhouse gas emissions trading scheme, according to the GES Authorization and the related Measures Plan are determined by calculation according to the applicable regulations.

Emissions of pollutants from chimneys of combustion facilities (similar to EU-ETS facilities) are determined on a monthly basis to pay fees to the Environment Fund.

Radioactive effluent monitoring program at Cernavoda NPP

Independent of the Environment Radioactivity Monitoring Program, a Liquid and Gaseous Radioactive Effluent Monitoring Program is implemented at Cernavoda NPP, which ensures the control and monitoring of the radioactive emissions at the point of discharge by means of measuring systems: Liquid Effluent Monitor and Gaseous Effluent Monitor. These systems ensure the continuous monitoring of the potential radioactive effluent emissions and the provision of representative samples necessary to assess the radiological impact on the environment.

The results of the Liquid and Gaseous Radioactive Effluent Monitoring Program in the period 1996-2020 confirm a much lower emission level compared to the legal limits and the constraints set by the regulatory body (CNCAN).



Program for the physical-chemical monitoring of the liquid effluent and non-radioactive gaseous material

Any potentially contaminated air discharge is directed towards the discharge shaft, which disperses it into the environment. The air is monitored on an on-going basis and based on the results of the analyzes, estimates of the additional dose that a person in the population could receive due to these discharges are made. Each year approximately 1500 filters are measured at every unit in order to determine the radioactive gas emissions.

The discharge of potentially radioactive water is done in the condenser cooling water canal, ensuring a dilution of minimum 1:2900 (generally the dilution is 1:7000). During the discharge, waters are permanently monitored by the monitor of radioactive liquid effluents, which stops the discharge if an alarm occurs. The radioactivity measuring performed on the potentially radioactive water samples are used for estimating the additional dose a person from the population could receive because of these discharges. Annually, for the monitoring

of potentially radioactive liquid effluents coming from a unit, about 1500 samples of water from a unit are analyzed in the laboratory.

Throughout the 24 years of operation of Unit 1 and 13 years of operation of Unit 2, the annual effective radiation dose collected by a person in the critical group of the population from the area of Cernavoda, caused by radioactive emissions from the nuclear power plant, including tritium, have not exceed 10 microSv, being hundreds of times smaller than the dose produced by the natural radiation source, which, for Romania has an average value of 2,400 microSv/year.



Program for the physical-chemical monitoring of the liquid effluent and non-radioactive gaseous material

Working in a radiation field

In order to control the work in a radiation field, procedures are developed to ensure the assessment and identification of radiological hazards and the adequate protection measures for the performance and management of the works.

* ALARA = As Low As Reasonably Achievable This process includes measurements of radiation fields, protection equipment, contamination and irradiation control, use of special tools, work procedures, training facilities, worker qualification and training, as well as surveillance.



A radiation field work permit

a) A radiation field work permit (authorization) system is in place to ensure that all the activities in a radiation field are checked and approved at an appropriate hierarchical level before they are carried out. The level of approval increases proportionally with the increase of hazards.



ALARA* principle.

b) For works in fields with high levels of radiation, a rigorous work planning process is established, which demonstrates that all necessary factors have been taken into consideration, and that the radiation doses will be consistent with the ALARA* principle.



Planning, approval and management

c) The personnel of the Radiation Protection Department is involved in the planning, approval and management of works with high radiological risk.

Program for the physical-chemical monitoring of the liquid effluent and non-radioactive gaseous material

Dose limits

The dose limits used at Cernavoda NPP are in line with the Rules on Radiological Safety Base Requirements (CNCAN Order 138/2018) and the recommendations of the International Commission on Radiological Protection (ICRP) set out in publication 103.

The targets for individual and collective doses are set on an annual basis. Dose-limiting objectives are set for certain works and teams of workers, depending on the existing situation, as a measure of intermediate control.

Furthermore, there is a system in place for controlling the collected doses, identifying problematic areas and taking corrective measures in due time.



Program for the physical-chemical monitoring of the liquid effluent and non-radioactive gaseous material

Monitoring work premises. Contamination control.

The radiologically controlled area is an area subject to special rules with the purpose of protection against ionizing radiation and of preventing the dissemination of radioactive contamination, and where the access is controlled.

From this point of view, RD-01364-RP009 "Radiation Protection Policy, Principles and Regulations at Cernavoda NPP", together with RD-01364-RP002, the "Control of personnel radiation exposure" process cover a main element: they establish the work areas to be monitored, in order to provide information on the radiological hazards in the plant.

The nature and frequency of work premises monitoring are set so as to allow:

- the assessment of radiological conditions in all work premises;
- the estimation of exposures in the controlled area.

Routine monitoring of work premises has the purpose of confirming the satisfactory conditions of the working environment for the performance of activities and of underlining the changes that may require the review of work procedures.

The monitoring related to certain activities has the purpose of providing information about the radiological conditions in the areas in which they are to be carried out and is the basis for the immediate decisions that are being taken for their performance.

The following are being monitored:

- Radiological conditions in work premises;
- Contamination of the personnel;
- Contamination of materials and equipment;

The communication and recording of monitoring results are carried out in compliance with the procedures developed by the Radiation Protection Department.





Program for the physical-chemical monitoring of the liquid effluent and non-radioactive gaseous material

Personnel Dosimetry

Cernavoda NPP has the responsibility to ensure the radiological monitoring of the working environment for the professionally exposed workers and visitors during the performance of its authorized activities.

The correct measurement and recording of the doses collected by the professionally exposed staff of Cernavoda NPP and by contractors is a very important element of the “Control of personnel radiation exposure” process.

The dosimetry program of Cernavoda NPP is based on the requirements of the applicable national legislation and on the latest recommendations of the International Commission for Radiological Protection.

The dosimetry program, including the methods used and their technical justification, is developed by the Radiation Protection Department.

The doses collected by the personnel professionally exposed at Cernavoda NPP are due to the external and internal exposures characteristic of a CANDU-type reactor.

External exposure represents the exposure to radioactive sources located outside the human body.

The main source for external irradiation in a CANDU type power plant is gamma radiation.

The measurement of the individual gamma dose is carried out using a thermal-luminescent detector dosimeter (TLD). Wearing the dosimeter is mandatory throughout the activity carried out in the radiologically controlled area.

Personnel training in the field of Radiation Protection

A key element in the safe operation of a nuclear power plant is its personnel. Employees and external workers are selected and trained with the purpose of ensuring their capacity to safely perform the tasks they have received.

The training program provides the theoretical and practical training in Radiation Protection for a sufficient number of employees within the Power Plant and external contractors, at a level that allows for their own radiation protection and their accountability for the protection of other people.

Program for the physical-chemical monitoring of the liquid effluent and non-radioactive gaseous material

Thermal-luminescent dosimeters are also used to measure the dose on the extremities, the thermal-luminescent pills being attached in the areas with the highest irradiation (fingers, wrists, ankles).

In a CANDU power plant, the neutron doses have a small contribution to external irradiation and are monitored in turn using a neutron flowmeter.

Internal exposure (contamination) is the process of penetration into the body of radioactive materials by means of inhalation, ingestion or through the skin.

The main source for indoor exposure in a CANDU-type power plant is heavy tritiated water vapors.

The internal dose due to this source is determined by analyzing urine samples based on the liquid scintillator detection technique. The frequency of sample measurement depends on the concentration of tritium in the urine from the last measured sample. The more the concentration of tritium in the urine increases, the interval between the supply of two biological samples decreases, ranging from monthly to daily.

Internal doses due to other sources are determined through direct measurement of the personnel at the Human Body Counter, with a frequency that depends on the nature of the activity performed. Measurements with the human body counter are carried out monthly, quarterly, annually, or once every three years.



Program for the physical-chemical monitoring of the liquid effluent and non-radioactive gaseous material

Recording the doses

For the correct recording and retrieval of doses, a recording system in electronic format (database type) and on paper is in place. In addition to the evidence of the collected doses, the system also keeps records of the analytical results of all samples.

Maintaining the organization's commitment for the reduction of personnel exposure has led to top results regarding the collective doses collected, which have placed both units in the top 25% of power plants evaluated by WANO.


Inter-comparisons

For the validation of the working methods in compliance with ISO 17025 and the CNCAN norms on individual dosimetry and radon, approved by Order 180 of 17.11.2020 and in order to demonstrate the credibility of the dose measurements for the personnel and the population, the Individual Dosimetry Laboratory participates in international inter-comparison exercises.

The Individual Dosimetry Laboratory is a member of the French Association PROCORAD (Association for Radiotoxic Measurements) and participates in inter-comparison exercises on internal dosimetry measurements since 2001.

The results obtained in the inter-comparison exercises by internal dosimetry measurements, in the period 2001 - 2018 were good and very good. The results obtained in the "Tritium measurement in urine" category, where the dosimetry laboratory qualified as reference laboratory in the years 2004, 2006, 2007 and in the category "C-14 measurements in the urine" where it qualified in "Top 4" best performing laboratories of PROCORAD Association in the years 2001, 2004, 2006, 2007, 2008 and 2009, 2010, 2012, 2013 should be noted and in category "C14&H3 measurements in urine" where it qualified as a Reference laboratory in 2012 and 2018.





Program for the physical-chemical monitoring of the liquid effluent and non-radioactive gaseous material

For external dosimetry measurements, the laboratory participated in 1999 in an exercise organized by IAEA, and, as of 2007 is participating in the inter-comparison exercises (Performance Tests for Dosimetry Systems with TLD used in CANDU power plants) organized by COG.

The results obtained in the inter-comparison exercises in the period 2001 - 2018 were good and very good. The results obtained in the "Tritium measurement in urine" category, where the dosimetry laboratory qualified as reference laboratory in the years 2004, 2006, 2007 and in the category "C-14 measurements in the urine" where it qualified in "Top 4" best performing laboratories of PROCORAD Association in the years 2001, 2004, 2006, 2007, 2008 and 2009, 2010, 2012, 2013 should be noted and in category "C14&H3 measurements in urine" where it qualified as a Reference laboratory in 2012 and 2018.

The International Intercomparative Exercises for external dosimetry measurements, organized by COG in period 2007-2018 at Chalk River Laboratories in Canada showed that the Laboratory of Individual Dosimetry obtained good and very good results, and successfully met the acceptance criteria imposed by national and international standards.



Radioactive waste management

Management policies and principles observe the national and international requirements regarding radioactive waste. Cernavoda NPP has the facilities required for the intermediate storage of radioactive waste, in secure installations for the personnel, as well as for the population and the environment.

Radioactive waste management

Radioactive waste is the result of day-to-day maintenance activities, repairs, scheduled or unscheduled power plant outages, and is managed completely separately from conventional waste.

The radioactive waste generated as a result of these activities is represented by:

- solids (plastic, cellulose, glass, wood, purification filters, filters from ventilation systems etc.);
- organic liquids (oil, solvent, scintillator liquid);
- (flammable) organic solid-liquid mixtures;
- watery solid-liquid mixtures (slurry).
- solid and liquid chemical waste.

Their collection and sorting is carried out by qualified personnel, following rules and criteria specified by procedures. The sorting activity applies to all types of radioactive waste.

For each type of radioactive waste (solids, organic liquids, mixtures of solids and organic liquids, mixtures of solids and watery liquids and solid chemicals / liquids) various criteria are followed:

- source of origin (service building, reactor building)
- type of material (plastic, cellulose, metal, wood, oil, solvents etc.)
- content of radionuclide (short, medium or long lifetime)
- contact dose rate (weak active, medium active).

Radioactive waste management

After the sorting, radioactive waste is stored in special stainless steel containers.

Organic liquid radioactive waste, (flammable) organic solid-liquid mixtures are stored in the service building and is subsequently solidified in order to eliminate potential flammability hazards. Radioactive watery solid-liquid mixture waste (slurry) is stored in stainless steel barrels in the service building, and are subjected to a tarter treatment process for drying by methods of removing the water content.

Radioactive solid and liquid waste is kept in the service building in containers which are compatible with the chemical properties and are to be treated by authorized operators.

Radioactive waste management aims at identifying and controlling all radioactive waste produced and maintaining the

generation of radioactive waste at the minimum practicable level.

The reduction of the volume of waste produced is achieved by compaction (using a hydraulic press), by applying treatment methods by burning radioactive solid waste that can be burnt and melting radioactive metal waste, by authorized external operators by the unconditional release of the waste from the authorization conditions of CNCAN.

The storage of solid or solidified radioactive waste is ensured throughout the period of operation of the power plant under optimum security and conservation conditions. The final disposal of these types of waste will only take place after the consolidation in solid, safe matrices, which would ensure that at least for 300 years these shall not have a negative impact on the environment.





Cernavoda NPP's policy for managing used fuel is as follows:

- wet storage in the used fuel pool of the reactor for a period of minimum 6 years;
- dry storage for used fuel in the intermediate dry storage for a period of 50 years.

The intermediary storage is located at the Cernavoda NPP site, at approx. 700 m away from Unit 1, the transport being carried out on an internal road that allows the maintenance of an integrated physical protection system.

The storage will be carried out in stages, including 27 storage modules with a capacity of 12.000 bundles/module, which will ensure the storage of used fuel resulted from the operation of Cernavoda NPP, Units 1 and 2 for 50 years. To date, 9 modules have been built.

Environmental Protection Activity at NFP Pitesti

Within NFP-Pitesti there is a constant concern for the nuclear security policy to be in line with the context in which Romania has committed itself to observe the international documents to which it has adhered (treaties, agreements, conventions, arrangements etc.). For environmental protection, NFP-Pitesti has implemented its own program in compliance with the Romanian and European legislation. Environment management procedures are developed in compliance with the SR EN ISO 14001:2015 standard and are the result of applying within NFP the Environment Management System that is part of NFP's Integrated Management System.

The Environmental Policy is an integral part of NFP's Policy on Nuclear Security, Quality, Environment, Safety and Health at Work, and NFP has also set its own Environmental Goals and Targets.

The Environment Authorization for SN Nuclearelectrica S.A. - Nuclear Fuel Plant branch of Pitesti issued by Government Resolution no. 24/2019 published in the Official Gazette no. 87bis/04.02.2019 seeks to keep under control all the elements resulting from the activities carried out and which could have an impact on the environmental factors and the population.

Radioactive waste management



NFP-Pitesti carries out the external communication with interested parties according to the legal requirements for reporting, situations, records, statistics, announcements, notifications, memos etc. to the environmental authorities (Ministry of Environment, Waters and Forests and the subordinated institutions, the National Commission for Nuclear Activities Control, the Nuclear Agency and Radioactive Waste etc.)

NFP-Pitesti has developed and implemented environmental monitoring programs providing measurements for the radioactivity of the environment and for non-radioactive elements on environmental factors: air, water, groundwater, soil, vegetation, dose and dose rates, noise, but also for emissions into the atmosphere of radioactive gaseous effluents and radioactive effluents from NFP at the Treatment Station of the Nuclear Research Institute in Pitesti. Following the monitoring operations, monitoring reports are being elaborated, which are submitted periodically to the Arges Environmental Protection Agency, the National Environmental Protection Agency and CNCAN in compliance with the Communication Protocol concluded between SNN SA and the Ministry of Environment, Waters and Forests regarding the method for achieving the special conditions and other



requirements included in the "Environmental Authorization for the Operation of the Nuclear Fuel Plant Branch of Pitesti". Furthermore, NFP-Pitesti is reporting online, in compliance with the Integrated Monitoring System the emissions of noxious emissions from motor vehicles and used oil waste.

Within the waste management program set out in the Radiological Security Manual of NFP, periodic reports are being submitted to CNCAN, APM and ANDR for radioactive solid and liquid waste.

For investments in terms of environmental protection, packaging, radioactive and non-radioactive waste, recyclable waste and materials, environment fund etc. NFP-Pitesti drafts reports and situations on a periodic basis, which it submits to ANPM, GNM CJ Arges, APM Arges, ANDR, SNN SA.

The environmental monitoring for the NFP-ICN platform and in its vicinity is performed by ICN-Pitesti with the contribution of NFP, in compliance with the environment radioactivity monitoring program of the ICN-NFP Pitesti platform, approved by CNCAN. NFP-Pitesti carries out the measurements and monitors all transports of radioactive materials in the form of UO₂ sintering powder, nuclear fuel bundles, weak active radioactive solid waste from/to CNU Feldioara and Cernavoda NPP, respectively.

The Environmental monitoring report and the Environment radioactivity monitoring report are being elaborated on an annual basis, reports that are posted on the site.

Radiological security activity at NFP Pitesti

The activity of protection against ionizing radiation (radiological protection and radiological security) in NFP is carried out according to Law 111/1996 on the safe deployment, regulation and control of nuclear activities, republished, the specific norms elaborated by the National Commission for Nuclear Activities Control (CNCAN) and the regulations imposed by the Ministry of Health (MS), as amended and supplemented. At the same time, the protection activity against ionizing radiation is designed according to the radiological risks characteristic for a CANDU nuclear fuel plant based on natural and depleted uranium. Pursuant to them, within the NFP, as nuclear goal, only personnel professionally exposed to ionizing radiation is working, with the NFP managing establishing and

maintaining a radiation protection program adequate for the specific nature of the plant. For the application of the radiation protection program, NFP has developed domain-specific documents: Radiological Security Manual, Radiation Protection Control Plans, Radiation Protection Procedures, Specific Programs, and obtained operating licenses every two years from CNCAN for all the activities that is performing in the nuclear field: possession, use, handling, processing, production, temporary storage, supply, transport of radioactive materials etc. It has also obtained the sanitary authorization for operation in the nuclear field from the Arges Public Health Department.



Radiological security activity at NFP Pitesti



For the measurement of individual external doses within NFP, the Laboratory of Radiation Protection and Personnel Dosimetry, appointed by CNCAN as a dosimetric body (currently LRDP has assignment certificate FCN_ODD 12/2020 valid for period 27.10.2020 – 26.10.2025). Dosimetric and Radiation Protection measurements are also being carried out in the Laboratory of Radiation Protection and Personnel Dosimetry, with apparatuses, equipment, devices, devices and sources of radiation included in the operating authorizations of NFP-Pitesti.

For the validation of the working methods in compliance with ISO 17025 and the radiological safety norms issued by CNCAN and in order to demonstrate the credibility of the dose measurements for the personnel and the population, the Personnel Radioprotection and Dosimetry Laboratory participates in international inter-comparison exercises, with the latest taking place in 2018 (with EURADOS). The radiological security activity takes place within the Nuclear Security Department, Radiation Protection and Personnel Dosimetry Laboratory.

Radiation protection means within NFP

In order to achieve the protection of NFP personnel and to minimize to the extent possible the risk of ionizing radiation contamination and occupational exposure, employees are provided, free of charge, with a wide range of personal protective equipment and personal protective equipment against ionizing radiation. Furthermore, NFP has under its own endowment collective radiation protective equipment and a modern ventilation system.

In the same context, within NFP, appropriate measures have been taken in compliance with the law, for the protection against ionizing radiation during interventions, emergency situations, during pregnancy, or removal for medical reasons from working in a field of radiations.

Radiological security activity at NFP Pitesti

Radiological monitoring of the working environment

Monitoring airborne particulate matter with uranium/radioactive aerosols

It takes place in NFP areas where work with open radiation sources is being carried out: UO₂ powders, crude and sintered UO₂ pills. Daily air samples are taken with the Central Aerosol Sampling System or using manual pumps and are radiometrically measured in an automatic or manual system within the LRDP.

Monitoring the radioactive contamination of surfaces

Monitoring the radioactive contamination of surfaces

Total surface contamination (fixed and unfixed) is measured by means of direct beta measurements and unfixed contamination by wiping the surface with special materials (smears) and measuring their alpha radioactivity in LRDP.

Monitoring the radiation fields (dose rates and doses)

Monitoring the radiation fields (dose rates and doses)

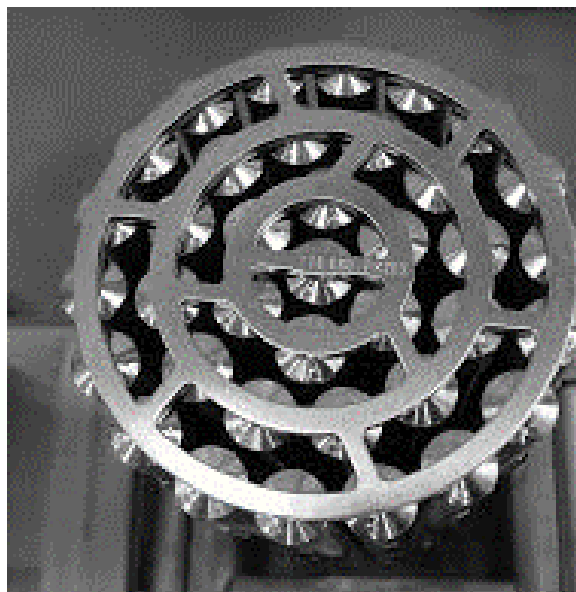
The measurement of dose rates and doses is carried out in particular at workplaces where significant quantities of nuclear material (containers with UO₂ powder, crude and sintered pills of UO₂, nuclear fuel elements and bundles) are present, but also within the perimeter of NFP by means of direct measurements or by dosimetric recording.

Monitorizarea radiologica individuala

The entire personnel of NFP is systematically monitored with a monthly frequency for the individual external dose received, using the TLD as a means of individual monitoring. TLDs must be worn throughout the entire working time. TLDs are measured within the LRDP, where the interpretation and recording of the individual external doses measured takes place.

Assessing, recording and evidence of individual internal doses

Radiological security activity at NFP Pitesti



Monitoring contamination

internal

This is carried out for the personnel directly exposed to open sources of radiation, by analyzing the uranium and beryllium in urine according to an established program.

The average annual total individual dose collected by NFP's professionally exposed personnel is around 1.2-1.5 mSv/year in relation to the maximum allowable dose limit of 20 mSv/year, according to the law and the administrative control limit of 15 mSv/year set by NFP as of 01.01.2015, according to the ALARA principle.

Assessing, recording and evidence of individual internal doses

The individual internal dose is determined only for the personnel exposed directly to open sources of radiation (airborne powders with uranium / radioactive aerosols), using the results of the Central Aerosol Sampling System. By summing up the annual individual internal dose with the annual individual external dose, the total annual individual dose is obtained.



Reporting

The results of the radiological monitoring of the working environment and of the individual radiological monitoring are periodically reported to CNCAN and DSP Arges, according to the requirements set out under the authorizations. All monitoring records are maintained and archived in the Nuclear Security Document Archive for the periods provided for by the law. For the individual monitoring of employees, the records are kept in individual dossiers with exposure to ionizing radiation until the age of 75 but not less than 30 years after leaving NFP.

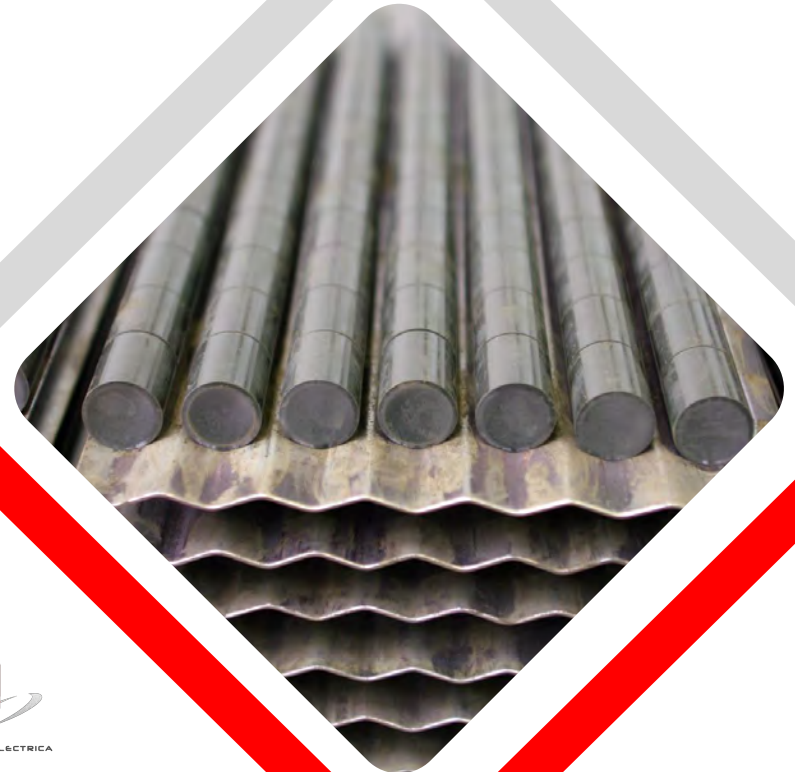
Training the personnel professionally exposed within NFP in the field of radiological security

The activity takes place in compliance with the provisions of the CNCAN norms based on a procedure-led system. The radiological security course takes place at the beginning of each year and is followed by the verification of the knowledge and the periodical release/approval of level 1 nuclear activity performance for the field of Nuclear Raw Materials, specialization Manufacture of Fuel Elements. All the employees of NFP hold Permits for performing level 1 nuclear activities, issued by NFP.

A number of 32 employees hold permits to exercise activities in the nuclear field of level 2, issued by CNCAN in the domain of Nuclear Raw Materials, specialist area Manufacture of Fuel Elements, Activities with open and closed sources of radiation, Generators of radiation and Transport of Radioactive Materials.

NFP-Pitesti provides the regular training of persons with responsibilities in the field of radiological security assurance by means of refreshing courses in the field of radioactive protection, held once every 5 years. The last two courses took place according to the approvals issued by CNCAN in the periods 16-20.09.2013 (20 persons) and 18.07.2019 – 24.07.2019 (39 persons) at the registered office of NFP-Pitesti with lecturers from the National Center for Training and Specialization in the Nuclear Domain IFIN Magurele.

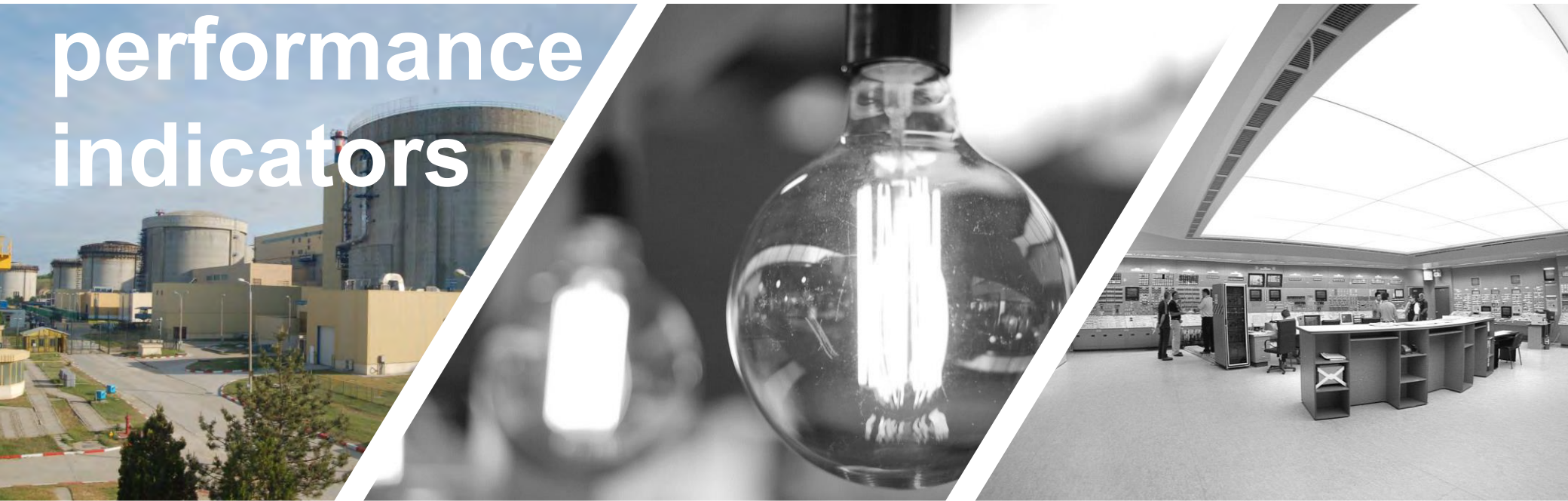
Radiological security activity at NFP Pitesti



Results and key performance indicators



Results and performance indicators



At U1 the capacity factor at the beginning of 2020 at the end of December was 87.29%, in December 2020 was 101.11% and in December 486770.5 MWh were delivered, with a total annual net quantity of 4,963,252.8 MWh.

At U2 the capacity factor at the beginning of 2020 at the end of December was 98.32%, in December 2020 was 99.7% and in December 482045.0 MWh were delivered, with a total annual net quantity of 5,611,815.4MWh.

The refueling program at U1 was achieved 100% (65/65). The refueling program at U2 was achieved 100% (62/62).

The gross production of electricity of the two operational units of CNE Cernavoda was 11,466,405 MWh in 2020; from this gross production, the own technological consumption of the Units during the operation, and during the outages ensured from own production was 909 thousand MWh in 2020.



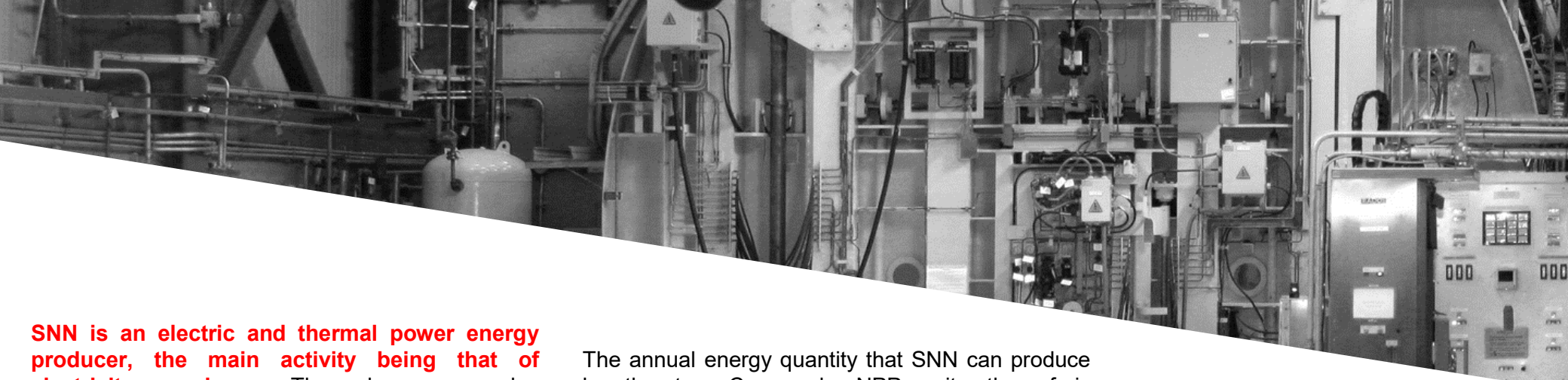
Thus, the electricity produced and delivered in the National Energy System (“NES”) was of 10,557,776 MWh in the year of 2020, as compared to 2019 (10,346,746 MWh), accounting for a 2% decrease. The increase is mainly due to the operation of amendment of the thresholds triggering the ROPT local supra-power protection systems (the system of protecting the reactor at high zonal powers) implemented at the end of last year at Unit 1 of Cernavoda NPP, which caused the increase of the reactor power, after cleaning the steam generators in 2016.

The net electricity production program approved by the Board of Directors for 2020 (revision February 2020) considered an amount of 10,391,265 MWh, being achieved at a 101.6% rate.

The installed power usage factor, recorded by each operational unit within CNE Cernavoda in 2020, and cumulated since the start of the commercial usage (Unit 1 on December 2nd, 1996, Unit 2 on November 1st, 2007) was as follows:

Cernavoda NPP unit	Cumulated 2020	Cumulated from the commercial commissioning
Unit 1	87.29%	90.54%
Unit 2	98.32%	94.45%

The lower value of the factor for using the installed capacity at Unit 1 CNE Cernavoda reflects the influence of the scheduled outage for an actual duration of 1,053 hours, recorded starting with June 20th, at 11:00, completed on August 3rd, at 08:00. The unplanned extension of the scheduled outage of Unit 1 CNE Cernavoda lasted 65.5 hours, the resynchronization moment being on August 6th at 04:04.



SNN is an electric and thermal power energy producer, the main activity being that of electricity producer. Thermal power sales revenues represent an insignificant portion in the total operating revenues. As well, SNN is a CANDU type fuel bundle producer, which are entirely used for the operation of Units 1 and 2 CNE Cernavoda.

The electrical power of Units 1 and 2 CNE Cernavoda in 2020 was influenced by the duration of the planned outage of Unit 1, amounting to 1,053 hours, its unscheduled extension by 59 hours, the unscheduled stop of 6.5 hours in August 5th, recharges with fuel and conjunctural causes, and by the unscheduled stop of Unit 2 amounting to 46.6 hours, which started on August 29th.

The annual energy quantity that SNN can produce by the two Cernavoda NPP units thereof is approximately 10.6 TWh (net), given the fact that the units are operated at a high capacity factor. The energy produced by SNN in period January 1st - November 30th, 2020 had a weight of approximately 20% in the total energy produced in Romania (net values).

Power production in 2019 – 2020:

Output	2020			2019		
	Unit 1	Unit 2	Total	Unit 1	Unit 2	Total
Gross production (GWh)	5,395	6,070	11,466	5,788	5,492	11,280
Net production (GWh)	4,963	5,611	10,575	5,293	5,075	10,368
Capacity factor (%)	87.29	98.32	92.81	93.86	89.18	91.52

Production of electric and thermal energy

Production of electric and thermal energy

The planned and unplanned outages for each unit:

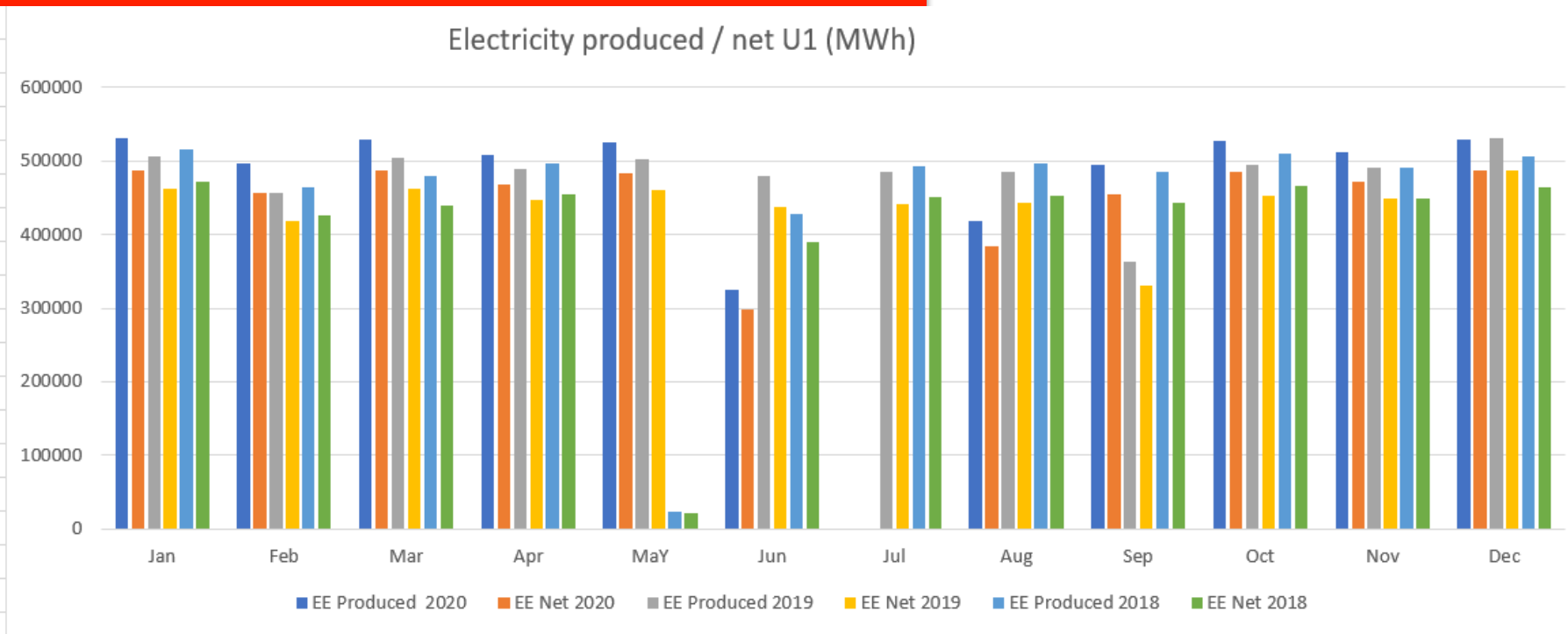
Event	Number outage days	
	2020	2019
Planned outage U1	43.9	-
Planned outage U2	-	31.3
Subtotal planned outages	43.9	31.3
Unplanned outage U1	2.7	6.67
Unplanned outage U2	1.9	4.1
Subtotal unplanned outages	4.6	10.77
Total	48.5	42.07

The number of hours of unplanned outages was within the number estimated according to the 2020 production program (12 days).



The number of hours of unplanned outages was within the number estimated according to the 2020 production program (12 days).

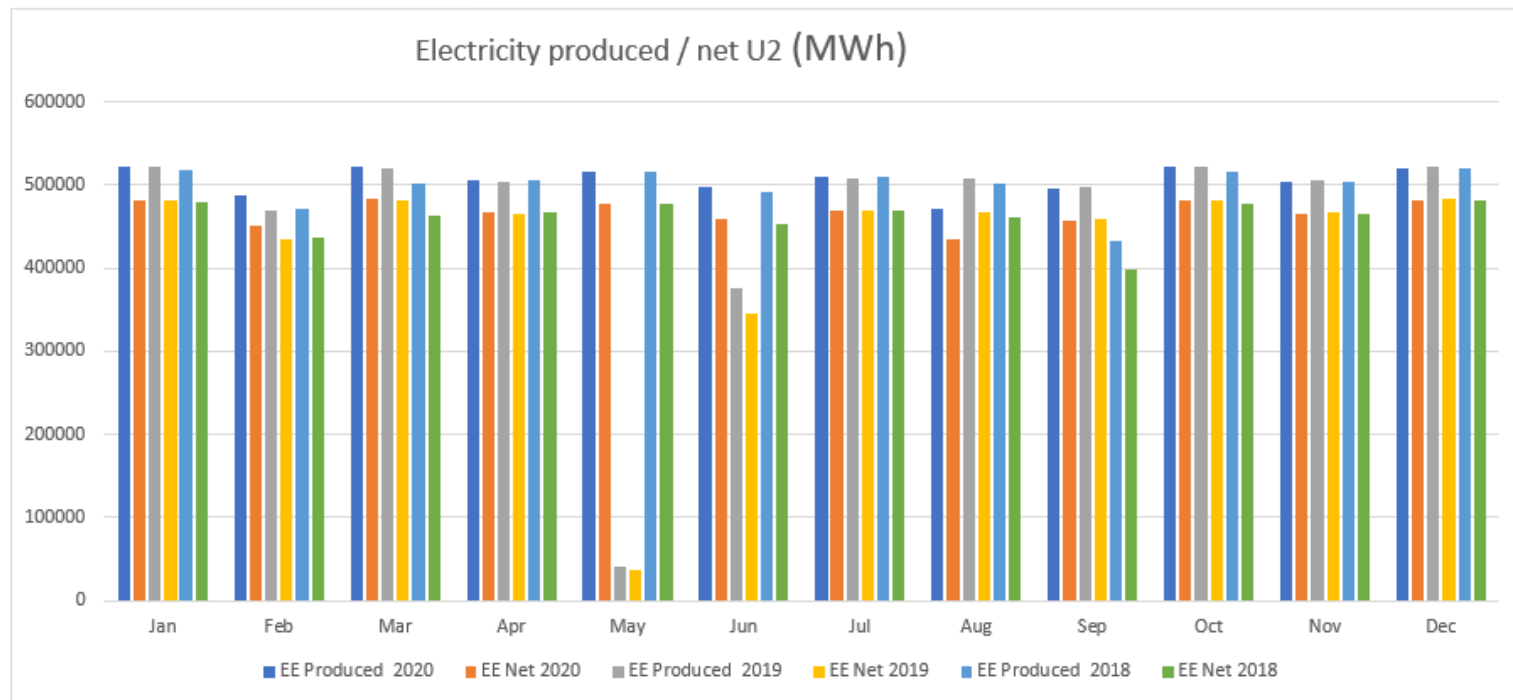
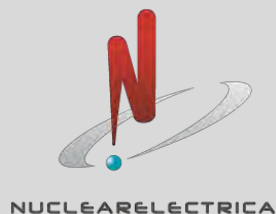
The main indicators of the production activity



	Jan	Feb	Mar	Apr	MaY	Jun	Jul	Aug	Sep	Oct	Nov	Dec
EE Produced 2020	530432	496946	529568	508474	525488	324014	0	418822	495106	526477	512202	528376
EE Net 2020	487268	456506	486927	468120	484151	298279	0	383418	454677	485077	472058	486770
EE Produced 2019	505440	456608	504767	488819	502683	478970	485180	485838	362658	495619	490369	530924
EE Net 2019	462883	418118	462230	447598	460473	437811	441747	442258	330205	452762	448752	487829
EE Produced 2018	515163	464488	478885	496337	23123	428392	493408	495982	484546	509511	490090	506816
EE Net 2018	472329	425724	439002	455147	21133	390620	450230	452090	442594	466789	448666	464173

Total 2020		Total 2019		Total 2018	
Produced E	Net E	Produced E	Net E	Produced E	Net E
5 395 904.0	4 963 253	5,787,876	5,292,668	5,386,742	4,928,499
Own average technological consumption: 8.02%		Own average technological consumption: 8.57%		Own average technological consumption: 8.52%	

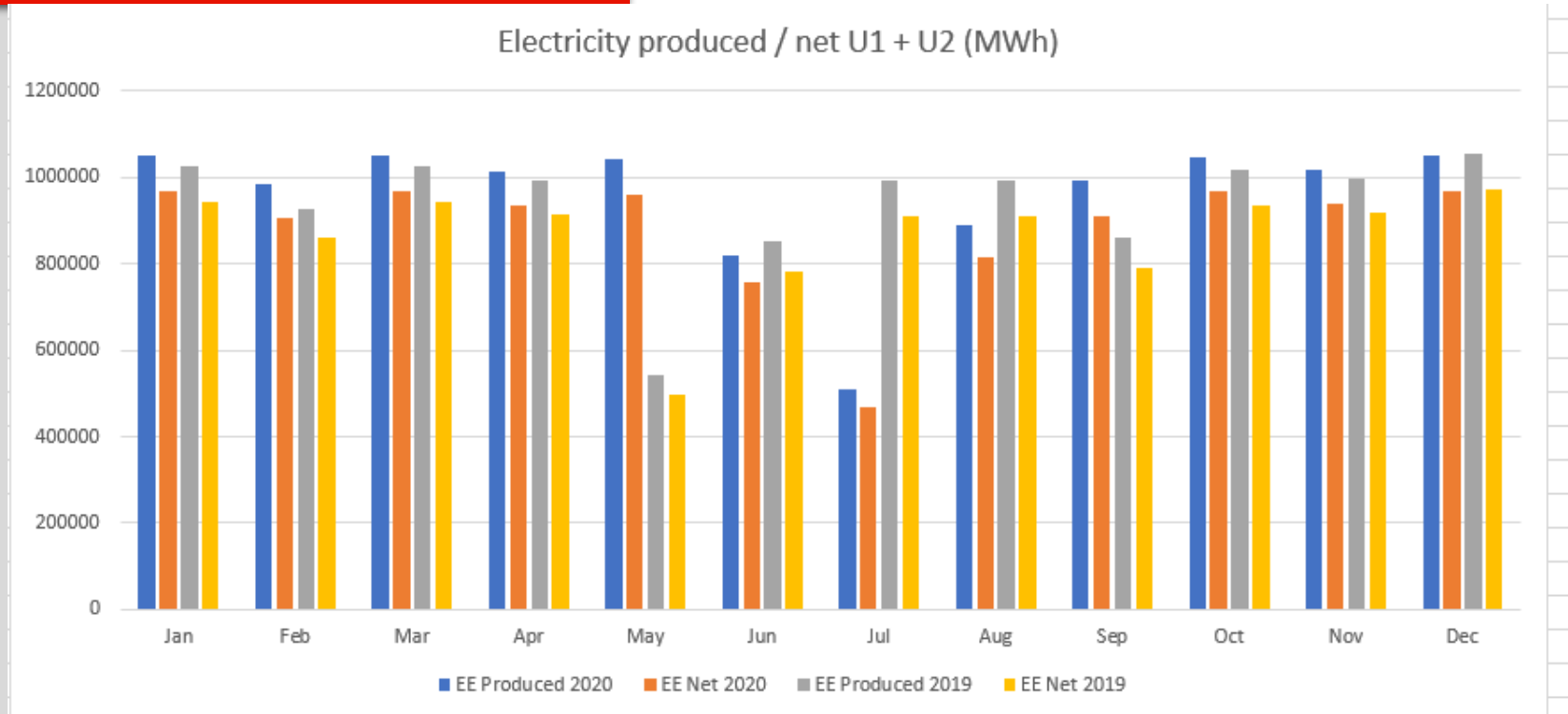
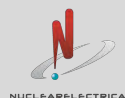
The main indicators of the production activity



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
EE Produced 2020	520917	487941	521720	504868	516612	497094	509397	470783	495831	520966	503571	520800
EE Net 2020	482146	451531	482815	467194	477671	459334	469921	433659	457579	482130	465793	482045
EE Produced 2019	521050	470153	520846	503167	39962	375326	508145	507427	497706	521128	505194	522187
EE Net 2019	482036	434694	481563	465236	36911	346130	468261	467640	459431	482155	467905	483579
EE Produced 2018	518704	471717	501670	505611	516767	492255	509888	501498	432506	516363	503577	520137
EE Net 2018	479703	436316	463751	467891	477570	453191	469600	461048	398486	476886	465373	481024

Total 2020		Total 2019		Total 2018	
Produced E	Net E	Produced E	Net E	Produced E	Net E
6 070 500	5 611 815	5,492,291	5,075,542	5,990,693	5,530,839
Own average technological consumption: 7.56%		Own average technological consumption: 7.60%		Own average technological consumption: 7.68%	

The main indicators of the production activity

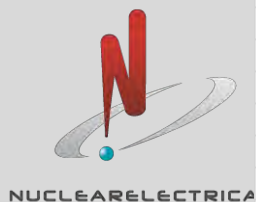


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
EE Produced 2020	1051349	984887	1051288	1013342	1042100	821108	509397	889605	990937	1047443	1015773	1049176
EE Net 2020	969414	908037	969742	935315	961823	757613	469921	817076	912256	967207	937851	968815
EE Produced 2019	1026490	926762	1025613	991986	542645	854296	993325	993265	860364	1016747	995563	1053111
EE Net 2019	944919	858812	943793	912834	497384	783942	910007	909899	789637	934918	916658	971408

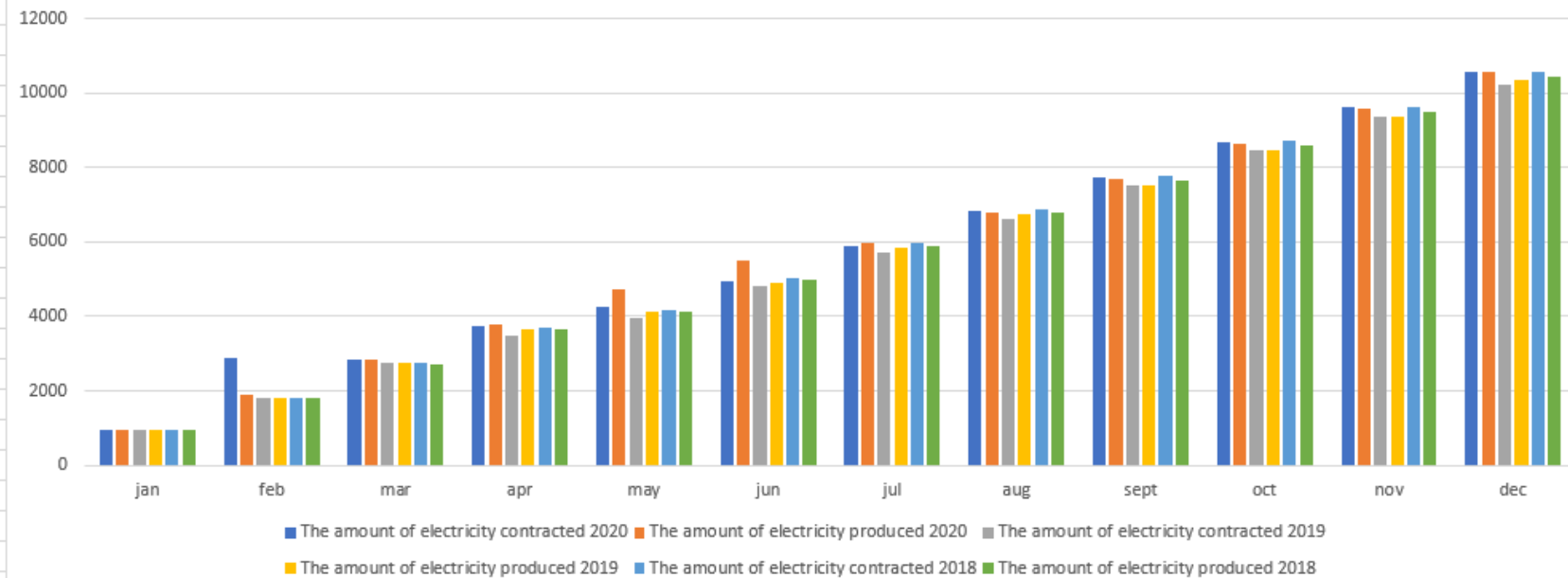
Total 2020		Total 2019	
E produced	Net E	Produced E	Net E
11 466 405	10 575 068	11,280,167	10,368,211
Own technological consumption of electricity		Own technological consumption of electricity	

Cumulatively accomplished in 2020: 7.79%	Accomplished cumulatively in 2019: 8.08%
Provided in the project: max. 10.00%	Provided for in the project: max. 10.00%

The main indicators of the production activity



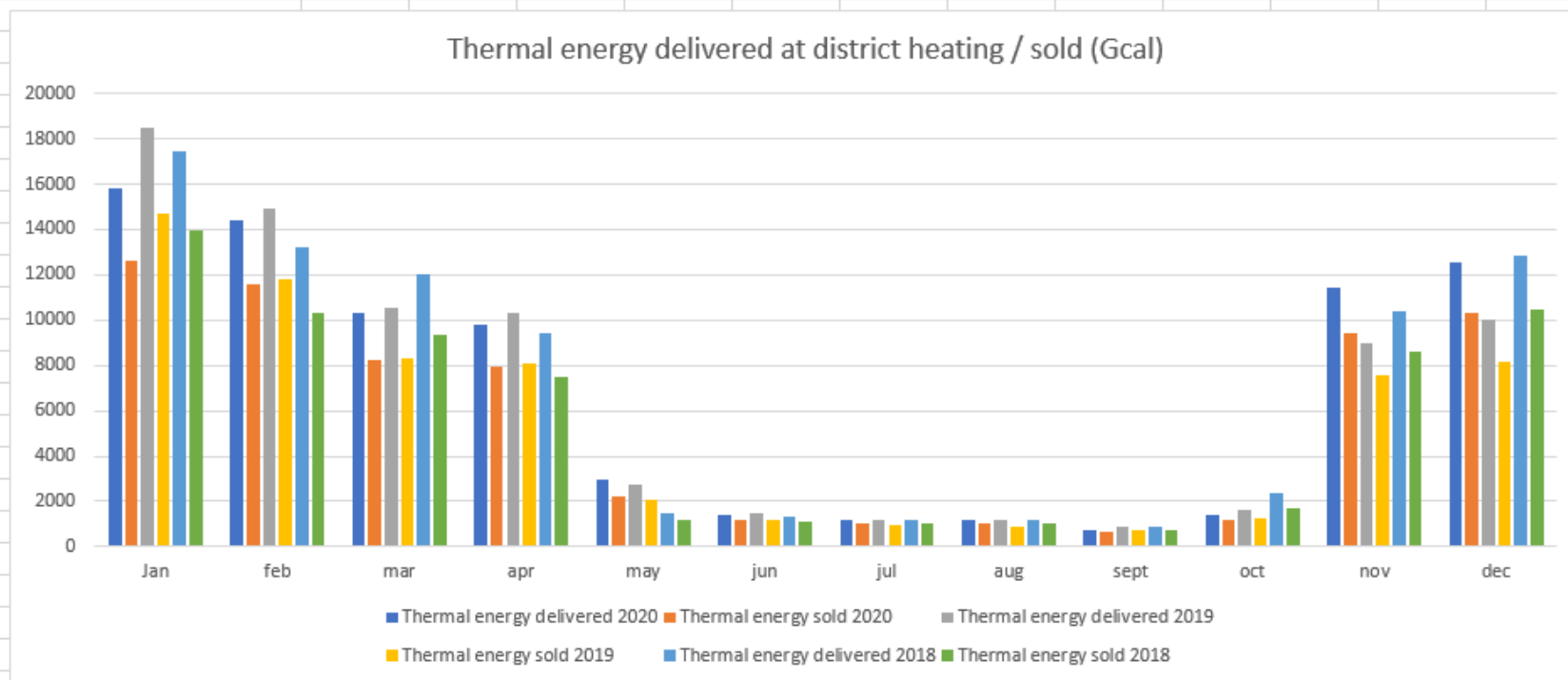
The amount of electricity programmed / realized
(for marketing) (thousand MWh)



	jan	feb	mar	apr	may	jun	jul	aug	sept	oct	nov	dec
The amount of electricity contracted 2020	964	2866	2827	3759	4261	4953	5891	6822	7734	8691	9618	10578
The amount of electricity produced 2020	960	1877	2847	3783	4744	5499	5960	6772	7684	8651	9589	10558
The amount of electricity contracted 2019	941	1791	2732	3486	3968	4814	5726	6634	7526	8461	9365	10228
The amount of electricity produced 2019	945	1798	2742	3654	4142	4919	5829	6739	7524	8459	9375	10347
The amount of electricity contracted 2018	953	1815	2767	3687	4177	5032	5955	6876	7777	8722	9634	10581
The amount of electricity produced 2018	952	1814	2714	3637	4128	4969	5889	6802	7640	8584	9498	10443

Percentage achieved in 2020: 99.81%
 Achievement percentage 2019: 101.16%
 Percentage achieved in 2018: 98.69%

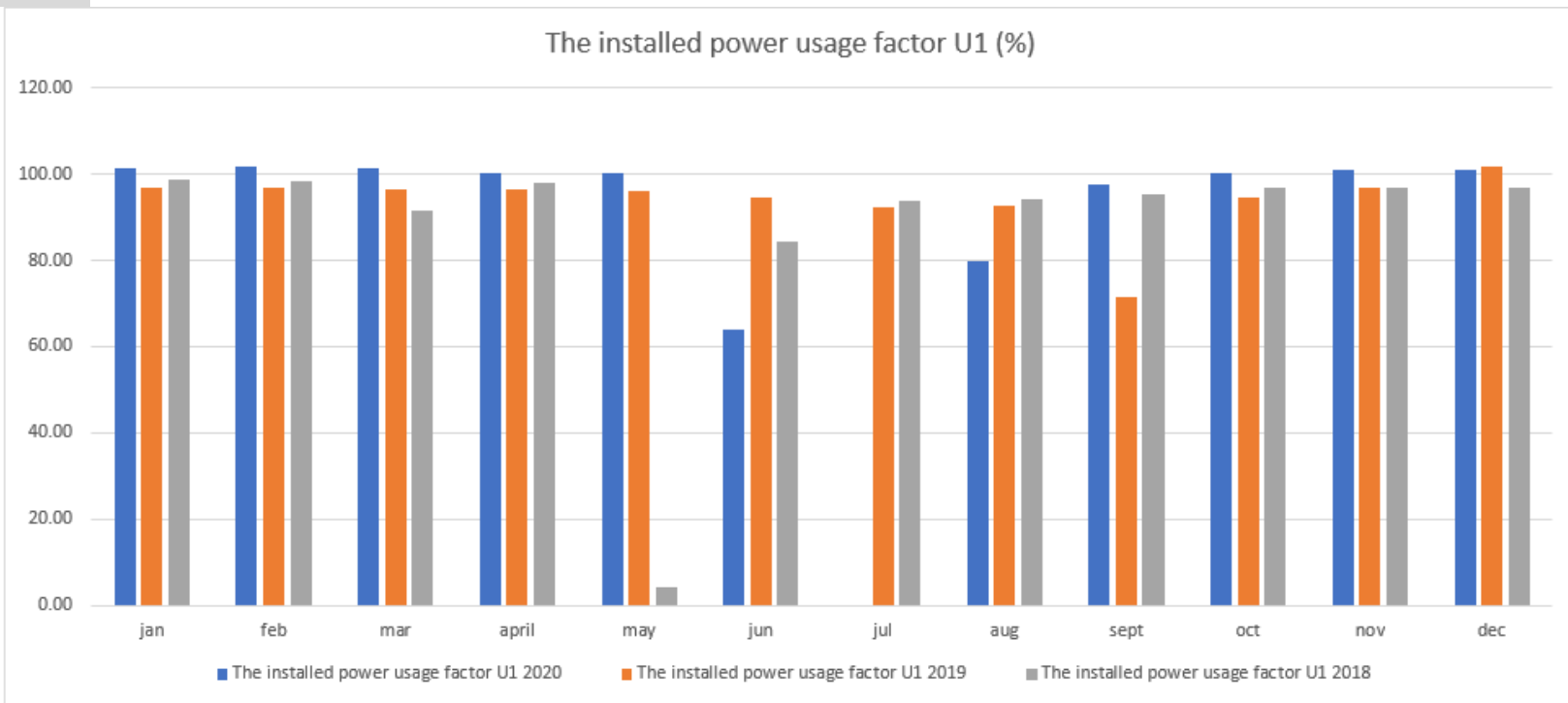
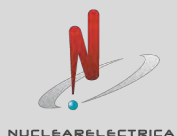
The main indicators of the production activity



	Jan	feb	mar	apr	may	jun	jul	aug	sept	oct	nov	dec
Thermal energy delivered 2020	15809	14400	10352	9824	2929	1398	1158	1166	750.93	1406	11455	12513
Thermal energy sold 2020	12595	11567	8237	7946	2198	1150	996	1010	633	1148	9428	10283
Thermal energy delivered 2019	18500	14945	10525	10310	2764	1439	1202	1148	894	1598	8983	10011
Thermal energy sold 2019	14735	11816	8307	8112	2067	1184	937	915	721	1225	7576	8144
Thermal energy delivered 2018	17427	13183	12054	9460	1501	1313	1212	1204	847	2356	10407	12836
Thermal energy sold 2018	13977	10318	9354	7499	1205	1118	1005	1000	698	1682	8603	10479

Total 2020		Total 2019		Total 2018	
Thermal E delivered	Thermal E sold	Thermal E delivered	Thermal E sold	Thermal E delivered	Thermal E sold
83 260	67 189	82,320	65,737	83,799	66,940

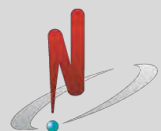
The main indicators of the production activity



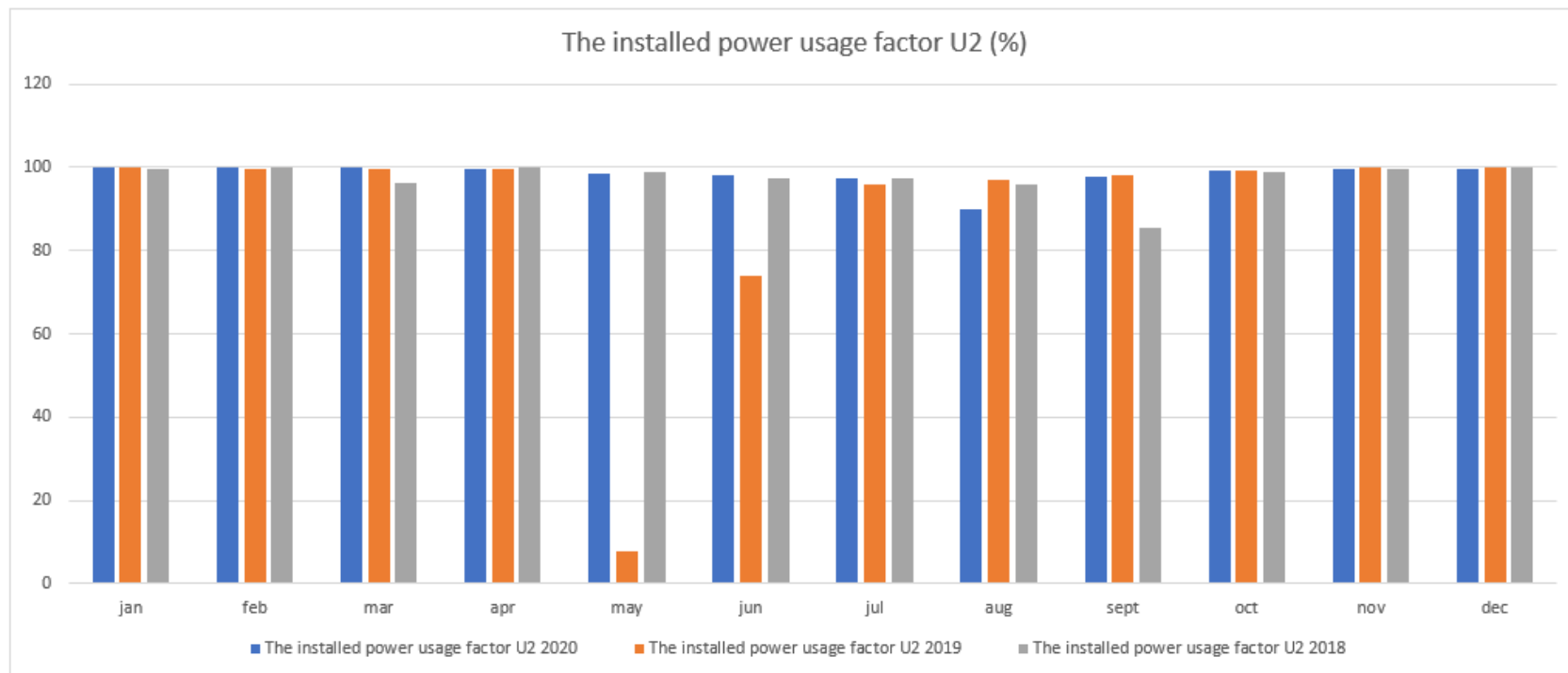
	jan	feb	mar	april	may	jun	jul	aug	sept	oct	nov	dec
The installed power usage factor U1 2020	101.53	101.64	101.37	100.38	100.1	63.75	0	79.87	97.64	100.34	101.05	101.11
The installed power usage factor U1 2019	96.78	96.7	96.6	96.47	95.96	94.46	92.41	92.54	71.43	94.37	96.79	101.6
The installed power usage factor U1 2018	98.6	98.5	91.7	97.9	4.4	84.2	93.8	94.3	95.2	96.8	96.8	97

Estimated 2020	Cumulated 2020 U1	Estimated 2019	Cumulated 2019 U1	Estimated 2018	Cumulated 2018 U1
87.5% (internal NPP target)	87.29%	92 (internal NPP target)	93.86	87.4 (internal NPP target)	87.31

The main indicators of the production activity



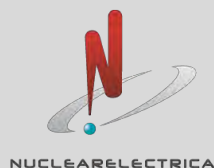
NUCLEARELECTRICA



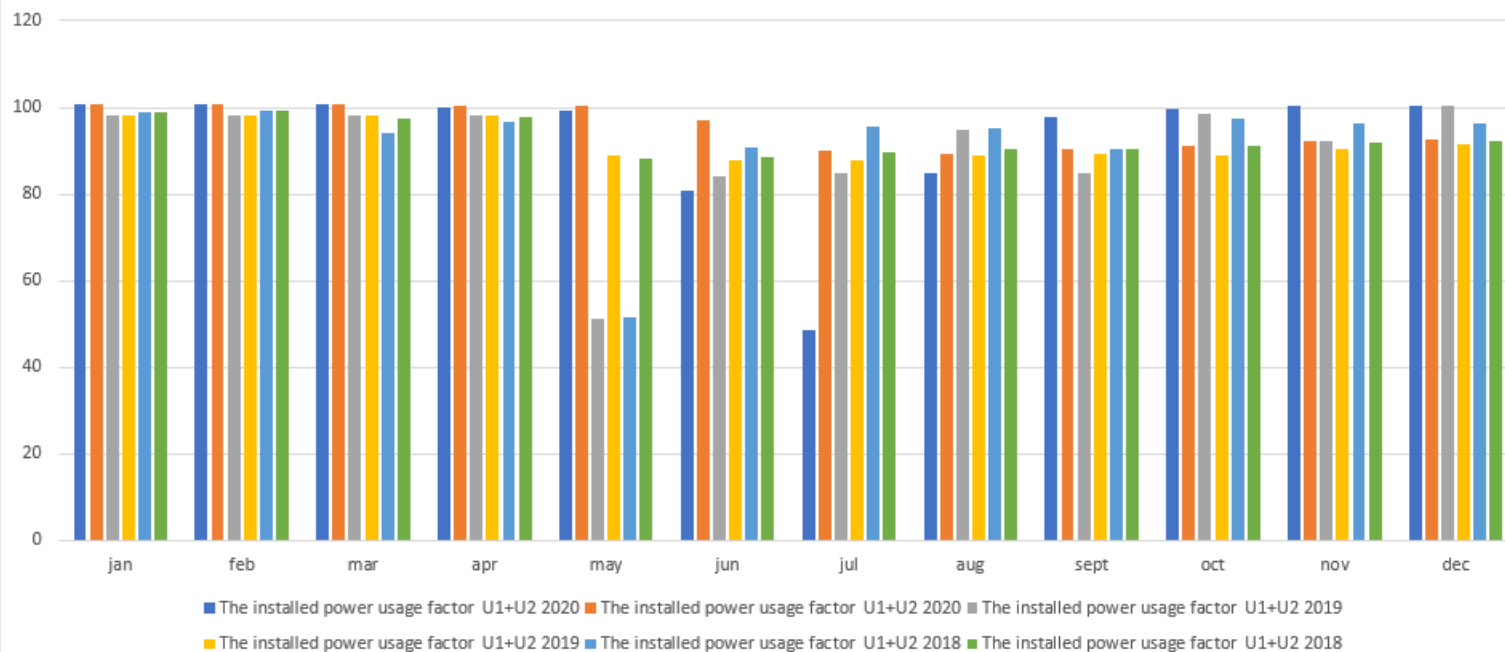
	jan	feb	mar	apr	may	jun	jul	aug	sept	oct	nov	dec
The installed power usage factor U2 2020	99.87	99.93	100.01	99.77	98.57	98.13	97.39	89.83	97.71	99.28	99.77	99.7
The installed power usage factor U2 2019	99.93	99.75	99.71	99.53	7.63	73.96	95.93	96.82	98.14	99.3	99.89	100.01
The installed power usage factor U2 2018	99.45	100.1	96.34	99.81	98.89	97.27	97.44	95.95	85.49	99.01	99.67	99.78

Prevazut 2020	Cumulat 2020 U2	Prevazut 2019	Cumulat 2019 U2	Prevazut 2018	Cumulat 2018 U2
97% (țintă internă CNE)	98.32%	90 (tinta interna CNE)	89,18	99 (tinta interna CNE)	97,43

The main indicators of the production activity



The installed power usage factor U1 + U2 (%)



	jan	feb	mar	apr	may	jun	jul	aug	sept	oct	nov	dec
The installed power usage factor U1+U2 2020	100.7	100.7	100.69	100.07	99.3	80.94	48.7	84.85	97.67	99.81	100.41	100.41
The installed power usage factor U1+U2 2020	100.7	100.7	100.73	100.57	100.32	97.12	90.07	89.41	90.31	91.28	92.1	92.8
The installed power usage factor U1+U2 2019	98.26	98.28	98.1	98	51.1	84.28	84.95	94.71	84.92	98.52	92.24	100.22
The installed power usage factor U1+U2 2019	98.26	98.28	98.28	98.1	88.88	87.92	87.92	88.91	89.11	88.9	90.55	91.52
The installed power usage factor U1+U2 2018	99.05	99.29	94.03	96.86	51.65	90.75	95.65	95.15	90.39	97.55	96.23	96.41
The installed power usage factor U1+U2 2018	99.05	99.16	97.4	97.77	88.3	88.7	89.72	90.41	90.41	91.18	91.81	92.37

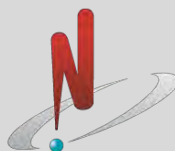
Cumulated 2020 91.28	Expected 2020 92	Cumulated 2019: 91.52	Expected 2019: 91	Cumulated 2018: 92.37	Expected 2018: 93
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Cumulated consumption 2020: 10 456
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Cumulated consumption 2019: 10,396
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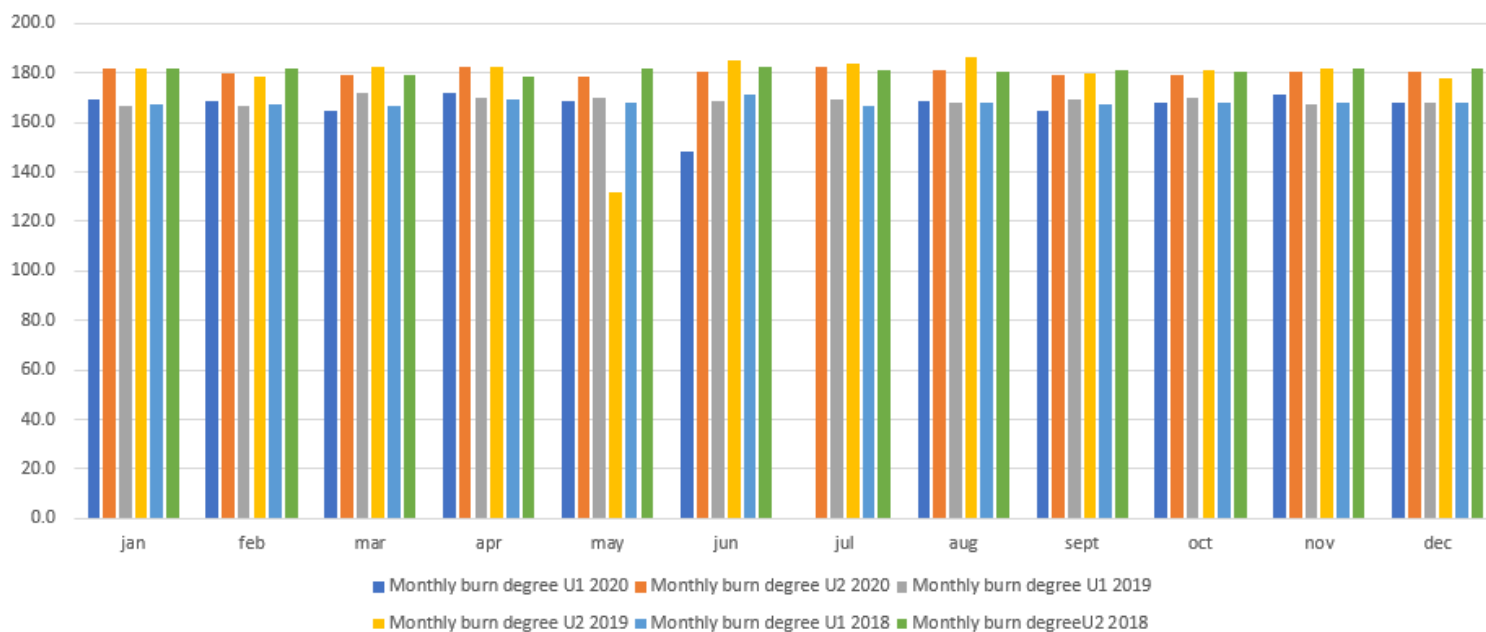
Cumulated consumption 2018: 10,376
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The main indicators of the production activity



NUCLEARELECTRICA

Degree of combustion of nuclear fuel (MWh/ KgU)



	jan	feb	mar	apr	may	jun	jul	aug	sept	oct	nov	dec
Monthly burn degree U1 2020	169.3	168.9	165.0	172.1	168.9	148.5	0	168.7	165	168.2	171.1	168.2
Monthly burn degree U2 2020	181.6	179.8	179.3	182.4	178.5	180.7	182.6	181.0	179.3	179.1	180.2	180.2
Monthly burn degree U1 2019	166.5	166.5	172	169.7	170.2	168.7	169.3	168.1	169.2	169.8	167.6	167.9
Monthly burn degree U2 2019	182.12	178.4	182.8	182.3	131.8	185.1	183.7	186.6	179.6	181.3	181.7	177.7
Monthly burn degree U1 2018	167.64	167.5	166.4	169.5	167.8	171.6	166.5	168.3	167.5	167.7	167.7	167.7
Monthly burn degree U2 2018	182.1	181.6	179	178.6	181.9	182.4	181.2	180.4	181	180.2	181.8	181.8



Nuclear security aspects

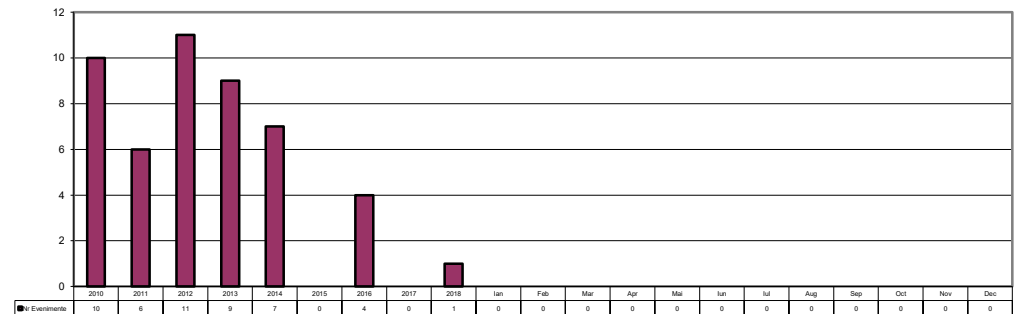
The operation activity was conducted without events with impact on nuclear safety, upon the own personnel, population and environment.jurator.

Nuclear security aspects

The operation activity was conducted without events with impact on nuclear safety, upon the own personnel, population and environment.

During the reporting period, no reportable operating event was recorded exceeding Level 1 on the international scale of nuclear events, regarding the degradation of deep defense barriers, impact on site or outside (indicator 1) and no human error leading to an event with consequences.

Number of reportable events



Classification on the ines scale (indicator 1):

Level 0: 0/ Level 1: 0 Limit 2019: 1

Radiation protection of personnel, population and environment



No special events have been recorded regarding the radiation protection of personnel, the population and the environment.

The dose for a representative person in the population, collected from the radioactive emissions is about 2.000 times lower than the legal dose limit.

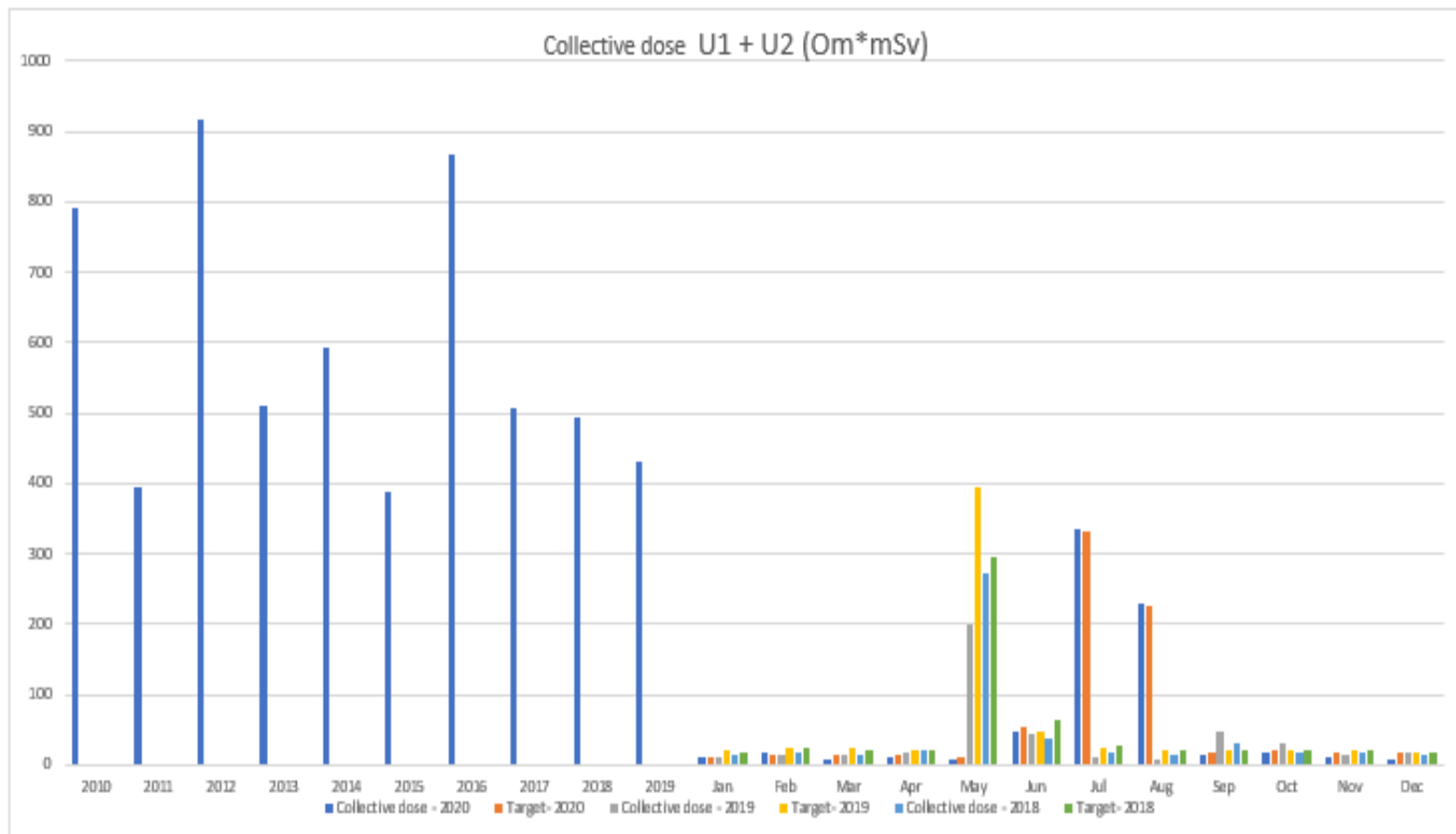
During December 2020, the routine individual dosimetry surveillance was ensured for 2,254 professionally exposed workers (NPP employees and contractors) and 2243 biological samples were analyzed

Information on monitoring and controlling individual doses (for professionally exposed personnel)

Regist ration no.	ALARA Indicator	Measuring Unit	Value
1	Maximum legal limit of the individual dose	mSv/an	20
2	Maximum administrative limit of the individual dose	mSv/an	14
3	2019 target for the maximum individual dose	mSv/an	7
4	Maximum individual dose cumulated since the beginning of 2020	mSv	7.5

Collective dose per power plant, U1 + U2
(Om*mSv)

Collective dose per power plant, U1 + U2 (Om*mSv)



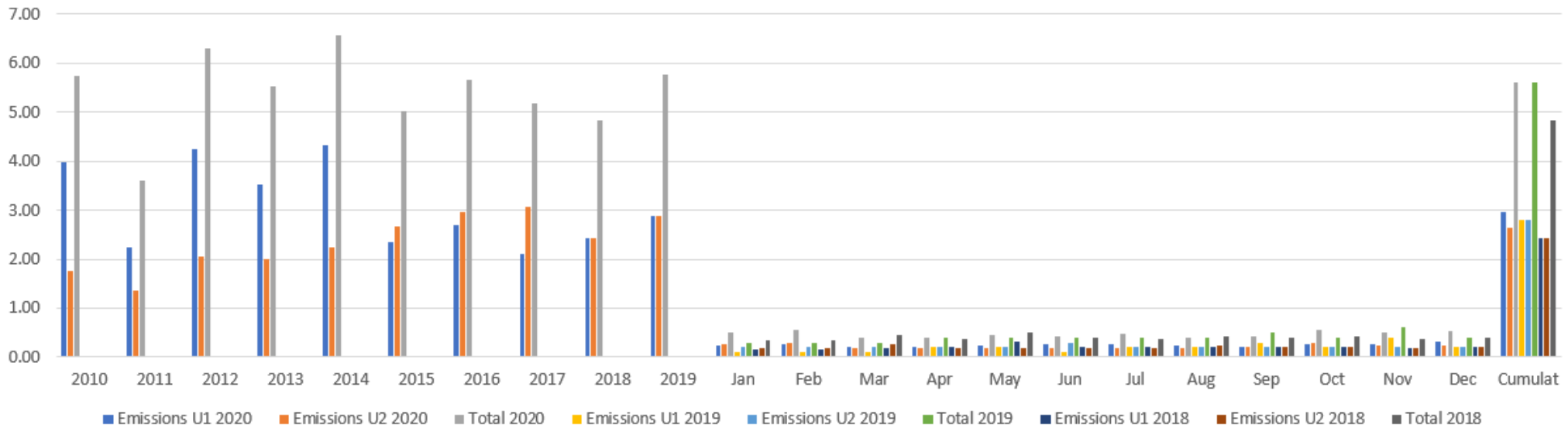
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Collective dose - 2020	790	393	918	509	592	388	868	507	494.03	432.6	9.999	17.829	9.287	10.974	9.236	48.012	334.462	228.226	15.321	17.827	11.393	6.942
Target- 2020											12.39	15.89	12.99	14.1	12.14	54.22	332.79	227.08	16.48	19.69	19.12	18.11
Collective dose - 2019											12.57	15.37	16	17.821	199.574	42.768	12.504	8.96	47.58	32.1	15.91	18.78
Target- 2019											21.1	23.8	24.58	21.1	395.7	47.8	23.85	19.77	20.42	20.2	20.88	18.78
Collective dose - 2018											14	18	14	22.73	273.14	39.14	17.239	15.417	29.616	17.608	16.638	15.26
Target- 2018											18	24	20	20.3	295.62	65.4	26.3	20.9	21.84	21.5	21.22	19.54

Cumulated 2020	Annual limit:	Cumulated 2019:	Annual limit:	Cumulated 2018	Annual limit:
719.51	755	432.6	655	494.03	576

NB: The collective dose per the power plant, cumulated from the beginning of the year is calculated as the sum of individual doses.

Radioactive emissions in the environment U1+U2 (microSv)

Dose restriction for Cernavoda NPP = 100 microSv/year/unit + 50 microSv/year DICA
 Legal limit for the population (according to the Fundamental Radiation Protection Norm NSR01) = 1,000 microSv / year



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Emissions U1 2020	3.98	2.24	4.25	3.53	4.33	2.35	2.70	2.10	2.42	2.88	0.232	0.266	0.211	0.200	0.249	0.254	0.275	0.229	0.212	0.252	0.274	0.309	2.962
Emissions U2 2020	1.75	1.37	2.05	1.99	2.24	2.66	2.97	3.07	2.42	2.89	0.260	0.301	0.184	0.196	0.191	0.177	0.192	0.174	0.206	0.302	0.225	0.233	2.641
Total 2020	5.73	3.61	6.30	5.52	6.57	5.01	5.67	5.17	4.84	5.77	0.492	0.567	0.395	0.396	0.439	0.431	0.466	0.403	0.418	0.554	0.499	0.542	5.604
Emissions U1 2019											0.100	0.100	0.100	0.200	0.200	0.100	0.200	0.200	0.300	0.200	0.400	0.200	2.800
Emissions U2 2019											0.200	0.200	0.200	0.200	0.200	0.300	0.200	0.200	0.200	0.200	0.200	0.200	2.800
Total 2019											0.300	0.300	0.300	0.400	0.400	0.400	0.400	0.400	0.500	0.400	0.600	0.400	5.600
Emissions U1 2018											0.160	0.160	0.190	0.200	0.320	0.210	0.200	0.200	0.200	0.200	0.180	0.200	2.420
Emissions U2 2018											0.190	0.190	0.270	0.180	0.180	0.180	0.180	0.230	0.210	0.220	0.180	0.210	2.420
Total 2018											0.350	0.350	0.460	0.380	0.500	0.390	0.380	0.430	0.410	0.420	0.360	0.410	4.840

Occupational safety and health / fire safety

Work accidents



No. of work accidents



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
No. of work accidents 2020	0	2	0	0	1	0	2	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0
No. of work accidents 2019											0	0	0	0	0	0	0	0	0	0	0	1	0
No. of work accidents 2018											0	0	0	0	0	1	0	0	0	0	0	0	0

NB: The cause for the occurrence of accidents is lack of attention while traveling.
There were no fires or fire starts from 2007 to the present.



Main risks and their management

The main objectives of SNN on medium and long term are maintaining nuclear safety and increase company performance, risk management becoming an important activity in this context.

Main risks and their management

The main objectives of SNN on medium and long term are maintaining nuclear safety and increase company performance, risk management becoming an important activity in this context. By the complex nature of the activities undertaken (manufacturing of nuclear fuel, electricity and heat production by operating nuclear units, power sales, procurement, stock activity etc.), the Company is exposed to various risks for which the management take all necessary steps to minimize them at an acceptable level.

The internal management inspection system is essentially an inspection of the obtained performance and it is adequate to best cover the interests pursued by the public entity in achieving its objectives.

Regarding and perceived as a management function, the internal management inspection is the responsibility of the managers of the public entities, who have the obligation to design, implement and develop it continuously.

In S.N. Nuclearelectrica S.A. the internal management inspection system is adapted to the specificity and size of the company, by considering the particularities of the legal framework of organization and operation, as well as the internal management inspection standards, in correlation with the management systems implemented within SNN (headquarters and branches) in order to ensure the compliance with all the applicable legal requirements, norms and standards (OSGG no. 600/2018, Law no. 111/1996, CNCAN Norms, etc.).



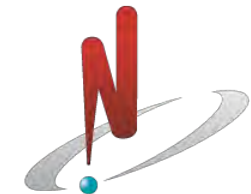
Main risks and their management

According to Order of the General Secretariat of the Government no. 600/2018 regarding the approval of the Management Internal Control Code of public entities, in S.N. Nuclearelectrica S.A., the management internal control system operates with a variety of procedures, means, actions, provisions regarding all aspects related to the entity's activities. This set of elements is established and implemented by the company's management, in order to allow it to have a good control over the operation of the entity overall, and is the management internal control tool that consists of the following elements: objectives, means, information system, organization, procedures, control.

Based on the information provided by the management internal inspections, the management of the company consolidates its managerial decisions regarding the plan of activity, the organization and coordination of the structures from the organizational chart of the company, the precise determination of the responsibilities by structures and the persons involved in the activities of the entity.

The management internal inspection by its objectives and procedures aims at: ensuring a proper use of resources (financial, human) and their correlation with the objectives of the entity; improving the informational flow; increasing intelligibility, risk management, fraud prevention and detection, and document quality.

Main risks and their management



NUCLEARELECTRICA

As a result of the diversity of the performed activities (nuclear fuel manufacture, electricity and thermal energy manufacture by operating nuclear units, energy sales, public procurement, stock exchange activities, etc.), S.N. Nuclearelectrica S.A. owns one of the most complex internal inspection environments, with an organizational culture aimed at continuous improvement, which wants to ensure supervision in all essential points. The purpose of the internal management inspection system is to prevent errors and irregularities, to preventively remove the underlying causes and to perfect the inspected activities. The internal management control provides to the managers data on the progress or regress in

achieving the intended objectives, and essentially represents a control of the obtained performance.

The managers of SN Nuclearelectrica SA are involved in the continuous implementation and improvement of the internal management system, ensuring the organizational framework and allocating resources for developing the internal inspection system, namely the assimilation of international best practices in the field, as basis for the systemic and transparent management of the organization, the basis for reaching objectives under conditions of regularity, effectiveness, economical management and efficiency.

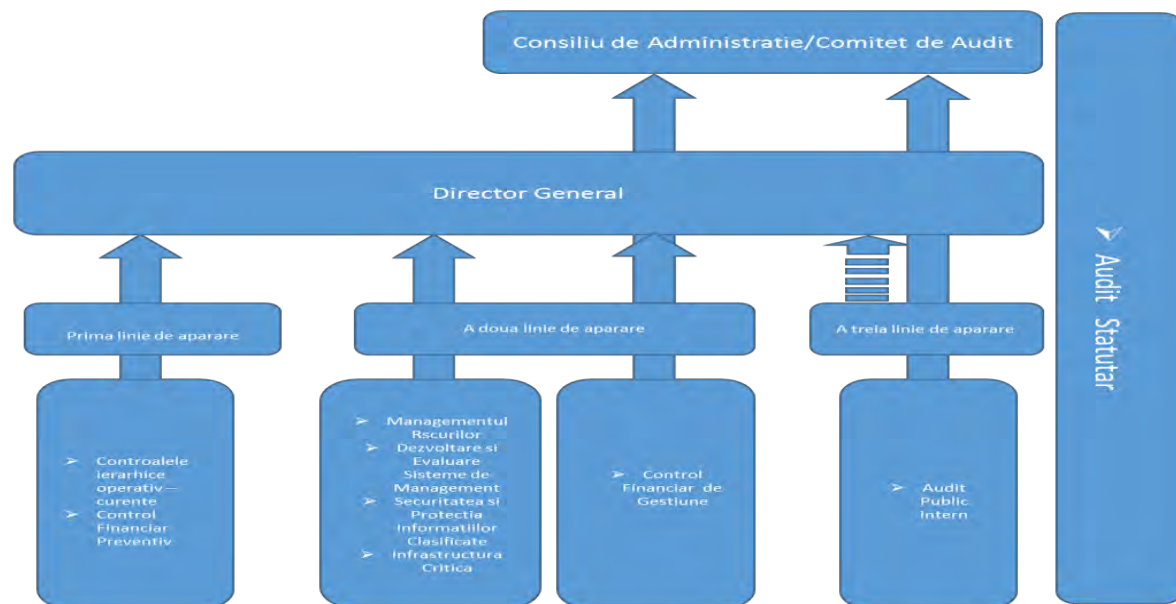
Main risks and their management



Consequently, the company ensures the compliance with the requirements of the standards promoted by the General Secretariat of the Government and Order no. 600/2018, which stipulates that the establishment of the internal management control system is the responsibility of the managers, the implementation and development of the internal management control system, the operation of its self-assessment, and drafting/submitting the report on the system of internal management control system constitute performance indicators for the manager of the unit.

Thus, the organizational model of SNN aims at ensuring the legal segregation and independence requirements of the defense levels, assimilated to the best practices and standards of the COSO model.

Organizarea sistemului de control intern in cadrul SN Nuclearelectrica SA

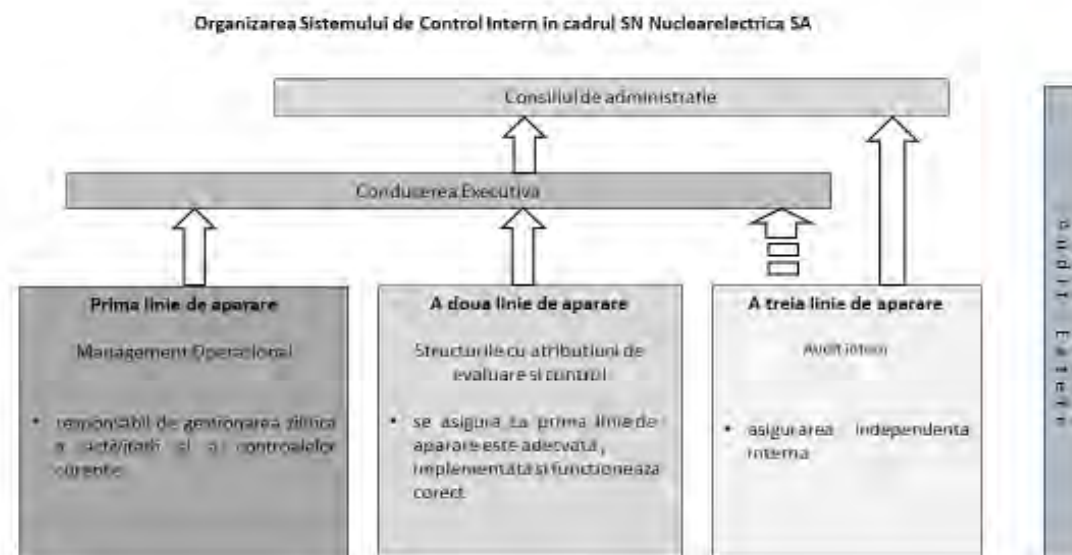


Main risks and their management

According to best practices and the requirements of OSGG no. 600/2018, SNN implements the model of "3 defense lines":

Where:

- The first line is represented by the operational management, responsible for the daily management of the activities and current inspections;
- The second line of defense is represented by the structures that have assessment and inspection attributions in ensuring that the first line of defense is adequate, implemented, and operates properly. These Departments have some degree of independence from the first line of defense, and can also intervene directly in modifying and developing the inspection, management and risk management systems;
- The third line of defense, ensuring internal independence - internal audit - must provide to the Board of Directors / the Audit Committee and the Executive Management with an independent and objective assurance on the operation of the internal inspection and risk management system within the Company.



Main risks and their management

Inspection environment - groups the matters related to organization, human resources management, ethics, deontology and integrity;

Performance and risk management - addresses management issues related to objective setting, planning (multi-annual planning), scheduling (management plan), performance (performance monitoring) and risk management;

Inspection activities - refers to the drafting of procedures, the continuity of processes and activities, the separation of duties, supervision;

The establishment of the internal management inspection is based on internal inspection standards that are grouped into five components of internal management inspection:

Information and communication - this section groups matters related to the creation of an adequate informational system and a system of reports regarding the implementation of the management plan, the budget, the use of resources and the management of documents

The assessment of the internal management inspection system and internal audit - the issue addressed by this group of standards refers to the development of the capacity to assess the internal management inspection, in order to ensure the continuity of the process of its improvement.

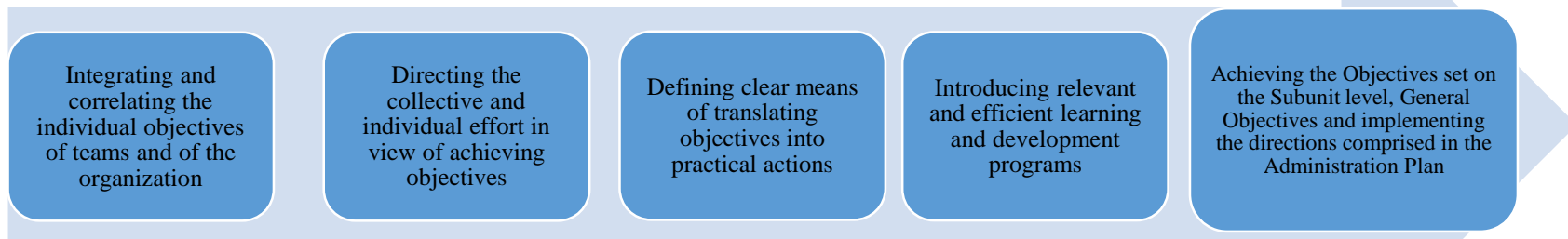
In view of the monitoring, coordination and methodological guidance of the implementation and development of the internal control / management system, the Chief Executive Officer of SN Nuclearelectrica SA ordered, by a resolution, the update of the Monitoring Commission (CM-SCIM), according to the organizational modifications, so that its size and structure ensure the representation of all the entities of the organization and cover the specific competence of the management, information and monitoring of the company activities towards the achievement of its objectives.

Main risks and their management

In order to monitor, coordinate and methodologically guide the implementation and development of the internal management inspection system, the Chief Executive Officer of SN Nuclearelectrica SA orders, by a resolution, to update, according to organizational modifications, to the Monitoring Commission that coordinates the process of updating the general and specific objectives, the procedural activities, the risk management process, the performance monitoring system, the status of the procedures and of the monitoring and reporting system, respectively notifications to the managers of the company.

Thus, the Commission for Monitoring the Internal Management Control System is operational, coordinated by the Deputy Chief Executive Officer as chairman, with attributions and responsibilities regarding:


The implementation of the objective cascading system aims to:



Objectives

- Coordinates the process of updating general and specific objectives, of the performance monitoring and reporting system, and notifying the Chief Executive Officer.
- Analyzes the notification, drafted based on the annual reports of the managers of the departments, regarding performance monitoring, in order to be approved by the monitoring commission and submitted to the Chief Executive Officer of S.N. Nuclearelectrica S.A.

Main risks and their management



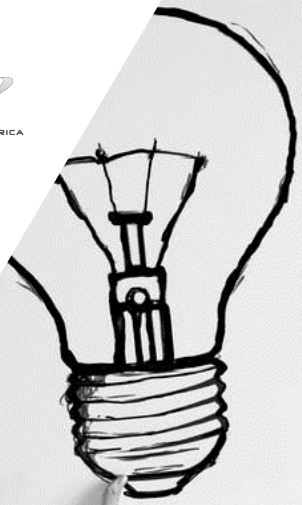
General objectives can only be achieved with the convergent and synchronized participation of the entire organization. The organizational alignment of all the components from the organizational structure is performed by defining, for each of them, the same set of instruments for translating the directions comprised in the Administration Plan in operational terms: setting general objections by presenting in a synthetic form the directions comprised in the Administration Plan, by considering both the administration component and the management component, deriving objectives on subunit levels (Head Office, Cernavoda NPP branch and Pitesti NFP branch) and its division into specific departmental objectives, by setting implementation means, targets and performance indicators.

In S.N. Nuclearelectrica S.A. the general objectives are closely correlated to the mission, vision and goals of the company, based on hypotheses and premises according to the provisions of the articles of incorporation, by complying with the principles of economical management,

efficiency and effectiveness.

The objectives on the level of the Bucharest headquarters, the NPP Cernavoda Branch and the NFP Pitesti Branch, considering the assumptions comprised in the management plan, by transposing the general objectives in a detailed manner, on the level of each subunit from the organizational structure.

In view of the monitoring, coordination and methodological guidance of the implementation and development of the internal control / management system, the Chief Executive Officer of SN Nuclearelectrica SA sets, by an internal resolution, the structure of the Monitoring Commission (CM-SCIM), according to the organizational modifications, in order to ensure the representation of all the entities of the organization, and cover all the specific competence of the management, information and monitoring of the company activities towards the achievement of its objectives.



Main risks and their management

Consequently, the Commission for Monitoring the Internal / Management Control System (CM-SCIM) according to the attributions of coordinating the process of setting and updating objectives, the system for monitoring performance and for reporting and informing the Chief Executive Officer, analyzed and approved the Report for monitoring objectives by the performance indicators on the level of the company in 2020, based on the reports of the managers of the departments on the first management level, according to the internal regulations and according to the legal requirements provided by Standard 5 - Objectives, and Standard no. 7 - Performance Monitoring of OSGG 600/2018.

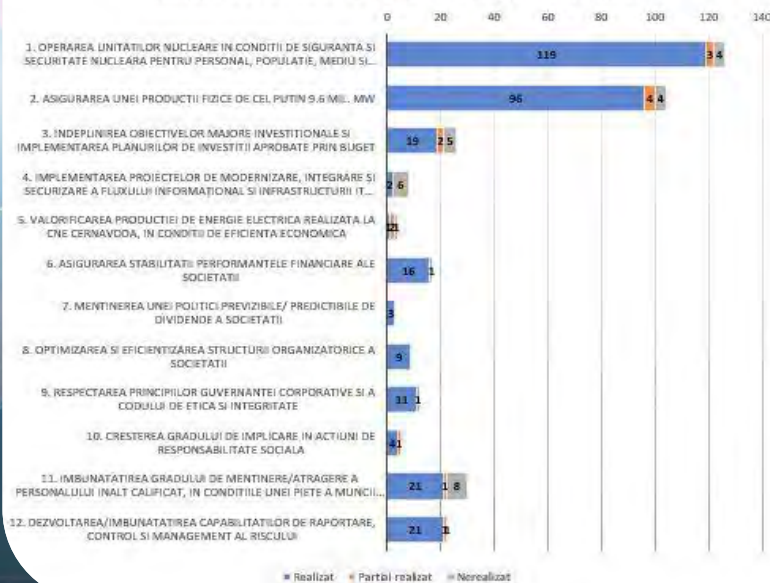
Thus, the monitoring showed a high degree of achieving specific objectives on the level of SNN, namely 88%, despite the unprecedented challenges and the unpredictability of the global crisis generated by the COVID-19 pandemic, as the organization management to promptly respond, focusing on the internal needs and ensuring business continuity, maintaining activities and operations on optimum levels. Consequently, this situation is the result of the actions performed within the organization, and the implemented measures had high efficiency, and could counteract the potential side effects generated by the actions that were necessary for fighting the pandemic.

Synthetically, the dashboard on company level and by each subunit is as follows:

OBIECTIVE S.N. NUCLEARELECTRICA S.A. 2020



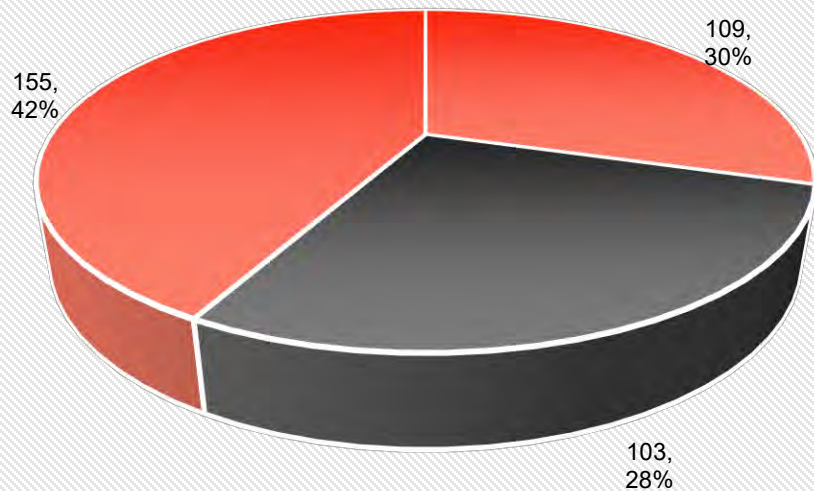
Gradul de realizare a obiectivelor generale SNN



■ Realizat ■ Parțial realizat ■ Nerealizat

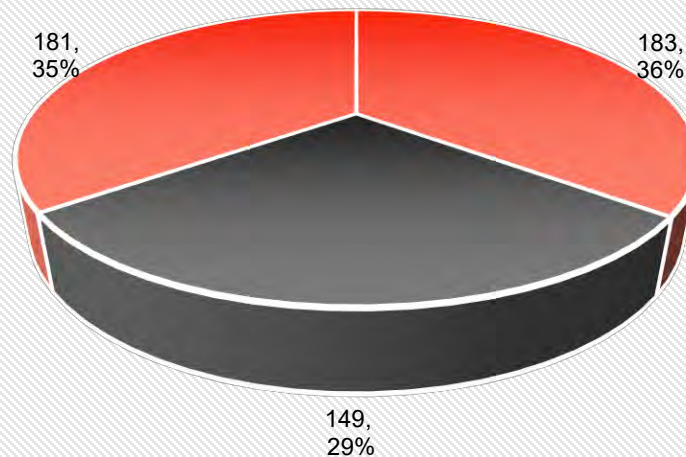
According to the specific objectives for 2020 and the associated performance indicators, the distribution on SNN level is as follows:

367 SPECIFIC OBJECTIVES



- SNN-SC
- CNE Cernavoda
- FCN Pitesti

513 INDICATORS ASSOCIATED TO SPECIFIC OBJECTIVES

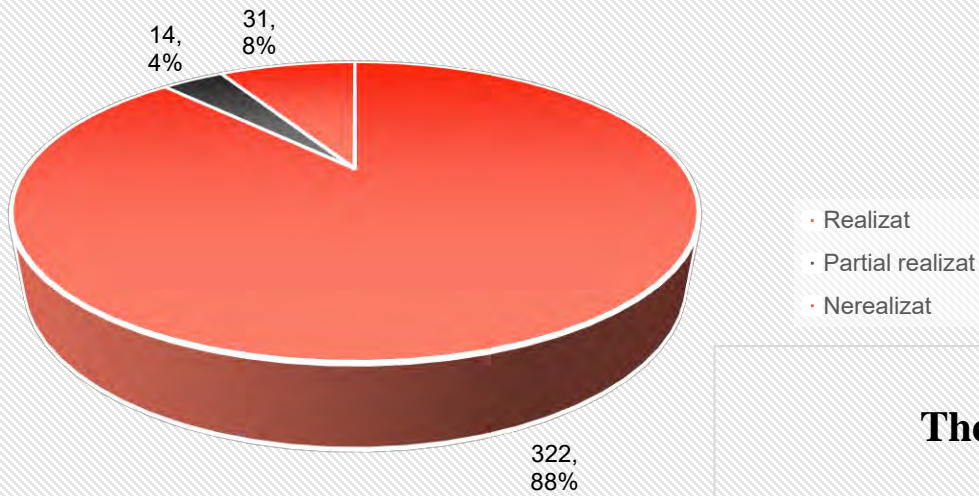


- SNN-SC
- CNE Cernavoda
- FCN Pitesti

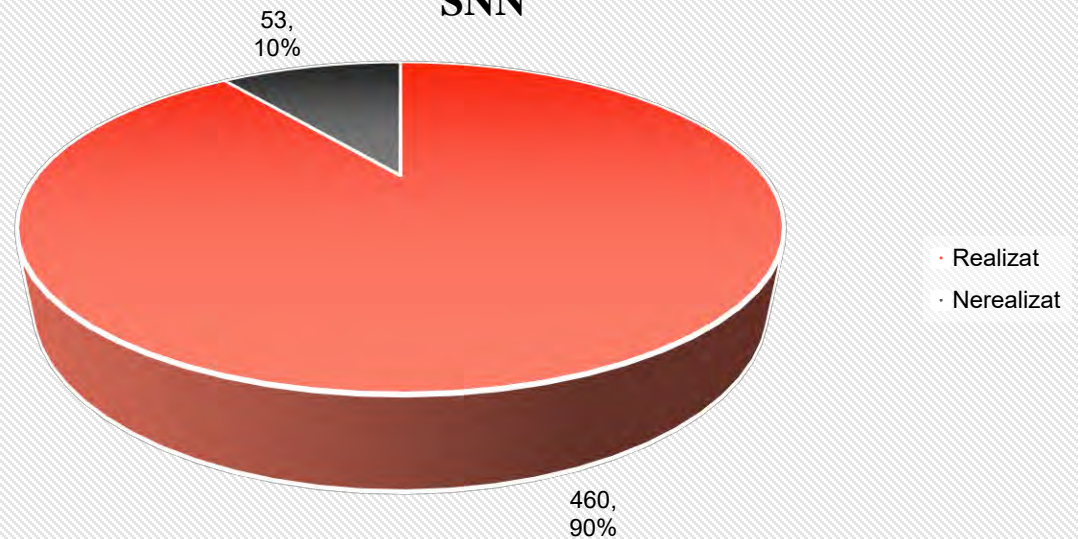


On the SNN level, the degree of achieving specific objectives and the associated performance indicators, synthetically, for 2020, are as follows:

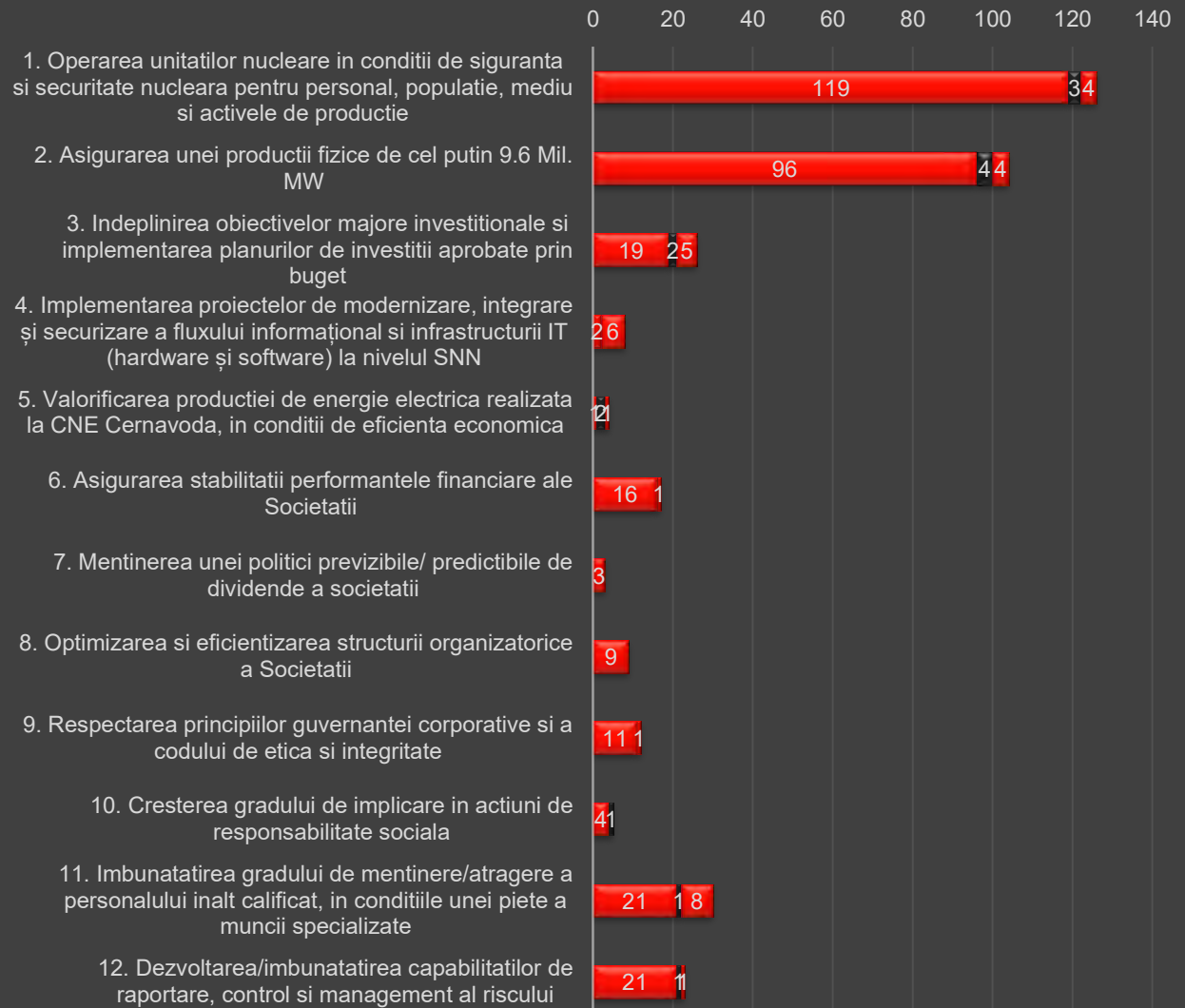
Specific objective achievement degree SNN



The achievement degree of the performance indicators SNN



SNN general objective achievement degree depending on specific objectives



■ Realizat
 ■ Partial realizat
 ■ Nerealizat

Main risks and their management

Procedures

- Coordinates the process of updating procedural activities and the situation of procedures.
- Coordinates the process of drafting documented procedures in order to regularly, economically, efficiently and effectively achieve the objectives of the company.

Implementing, developing and assessing the internal management inspection system

- Drafts the development program of the internal management system, called the Development Program, which is updated annually.
- Ascertains the stage of implementing and developing the internal management inspection system on the level of the company;
- The stage of implementing and developing the internal management inspection systems on the level of public entities, ascertained by the monitoring commission following the annual self-assessment action, is subject to notification, by drafting annual centralizing reports, according to the template provided in the centralizing report on the stage of implementing and developing the internal management inspection system, which is reported, until the legal deadlines.

Risk management



The risk management process is under the responsibility of the Chairman of the Monitoring Committee, and considering the size, complexity and environment specific to nuclear activities, the responsibilities regarding risk management are performed / fulfilled by the Risk Management Service (SMR) within the Audit and Risk Management Division (DAMR) together with risk managers and the SNN staff.

In fulfilling its attributions, the Internal management inspection monitoring commission analyzes the risk management process based on the Risk Management Reports issued by SMR and prioritizes the significant risks that may affect the achievement of the objectives.

The monitoring commission annually reviews and approves the levels of the risk profile and of the risk tolerance limit, based on the proposals of SMR regarding them, and then these are approved by the managers of the company. Also, the Commission analyzes the “Plan of implementing actions for managing high risks” in order to submit them for the approval of the Chief Executive Officer.

Main risks and their management



For 2020-2021, SNN approved the following risk profile:

Risk Name	2020 share	2021 share	2020 risk level	2021 risk level	2020 trend	2021 trend
Operational risk	40%	40%	Low	Low	→	↗
Market/price risk	5%	5%	Medium	Medium	↗	↗
Credit/counterparty risk	5%	5%	Medium	High	→	↗
Competition risk	5%	5%	High	High	↗	↗
Macroeconomic risk	5%	5%	High	High	→	↗
Regulatory /legislative risk	10%	10%	High	High	→	↗
Risk associated to investment/maintenance/refurbishment works	10%	10%	High	High	↗	↗
Project risk (U3 & U4)	10%	10%	High	High	↗	↗
Risk associated to the absence of specialized labour force	10%	10%	High	High	↗	↗
Total risk profile	100%	100%	Medium	Medium	→	↗

The Risk Management Service assesses the total risk level from the risk profile of SNN as remaining at the “Average” level in 2020. The assessment of the risk level for 2020-2021 considers the measures taken by the SNN managers in order to protect the personnel and continue the operation of the power station in the context of the Covid-19 pandemic, measures which:

- allowed the continuation of the operation of the power station under nuclear safety and security conditions on operational levels

similar to the levels before the outbreak of the pandemic, and

- they were deemed by all SNN employees as adequate, or the SNN employees were content and very content about them, according to the survey questionnaire internally administered regarding the measures taken by SNN during the pandemic.

Main risks and their management

Risk analysis regarding the current activities and business strategy

SNN as a company of national importance whose shares are listed on the stock exchange, has defined a business strategy ("Strategy of Societatea Nationala Nuclearelectrica SA for 2015-2025"), in which business, corporate governance and social responsibility objectives are combined in order to fulfill the mission and goals mandated by AGA, as well as the role assumed in society.

SNN established, in the development strategy 2015-2025, the main medium and long term strategies with the main focus of maintaining nuclear safety, the continuous growth and increase of its shareholders' profits, and the analysis of the risks of the activity is important in this context.

Medium and long term, the activity of SNN will be influenced both by the evolution of electricity prices and by the investment projects that the Company will develop: extending the life cycle of Unit 1, participating in the development of Units 3 and 4, continuing the development of DICA, setting up the funds needed for the solutions for the final storage of burnt fuel and building a tritium removal installation (CTRF - Cernavoda Tritium Removal Facility).

Consequently, the main risks in terms of SNN's activity and goals (market-related risks and project development) were analyzed. The diagram below comprises the overview of the main objectives, the critical elements in relation to the implementation of the strategies and the risks SNN will be faced with.

Main specific risks of SNN

Specific to the external environment and the Company

Macroeconomic Environment

Operational environment

Market risk

Operational risk

Currency risk

Counterparty risk

Competition risk

Specific to investment

Pre-construction stage

Construction stage

Operation stage

Legislative risk

Exceeding the costs

Operational risk

Risk related to the connection to the transport network

Risks related to the completion of the construction

Technological risk

Commercial risk and financing risk

Main risks and their management

Macroeconomic Environment

The future profitability of the operations of the Company and the feasibility of its projects depend on the market conditions from Romania and those from the countries with which it performs commercial operations, especially in the European Union. The main risk factors associated with the macroeconomic environment are grouped into the following three categories :

Market risk

The market risk category includes general market risks and risks associated with the Romanian electricity market. This risk combines the effects of macroeconomic performance, the evolution of the electricity market and the volatility of the electricity price, being generated by the fluctuation of the electricity price and the fluctuation of the prices of raw materials and materials, the reduced number of suppliers or commercial partners and the lack of long-term contracts. The materialization of the market risk has a direct impact on the overall performance of the Company.

Currency risk

The currency risk is determined by the current activities of the Company considering that some of them involve transactions in foreign currency. These transactions include the repayment of loans contracted in order to fund Unit 2 (in EUR, USD and CAD), technical support and contributions for decommissioning the two units.



Legislative/regulation risk

Legislative risk is represented by changes that may occur in the legislative framework of Romania and/or the European Union with direct applicability, without the necessity of transposing it into the national legislation. Possible changes may refer to imposing new taxes or setting standards and/or requirements for nuclear security by community, local and central authorities, and/or by the authority that regulates the nuclear energy field. The effect of the legislative risk may be the un-estimated increase of production costs, which may determine the drop of profit margins.

Besides the individual risk that can be generated by a single regulation (regulation, directives, law, ordinance, etc.), the Company is exposed to legislative / regulation risk and from the perspective of the high number of national and international regulation and / or inspection entities and / or professional associations, which address the activities of the Company, in this context there is the possibility that the regulations issued by various authorities are contradictory.

Main risks and their management

Operational environment

The Company's current operations are influenced by various additional risk factors that have a major impact on current profitability. The main categories of risks are the following:

Operational risk

Operational risk is associated with the risk of loss resulting either from the use of inadequate processes, people, or internal systems or which have not fulfilled their function properly, or from external events, and includes legal risk.

Operational risks are intrinsically associated with the activities of the Company, with its capacity to generate revenues and maintain the competitive operational margin and are closely related to the market position, the identification and assessment of investments, generated profits / losses, potential fines, penalties, sanctions, a deficient establishment or management of contractual obligations. These risks

depend on the Company's capacity of providing the necessary quantities of electricity that it has undertaken to provide under the contracts concluded on the regulated market and competitive market, considering both planned and unplanned outages for Units 1 and 2.

The occurrence of operational risks can be materialized in equipment malfunctions, human errors, the defective operation of operational processes, which can ultimately lead to unplanned outages.



Main risks and their management

Operational environment

Similarly, prolonged and extreme drought or other external events (e.g. powerful storms, extreme cold, failure of the electricity transmission network of Tranelectrica, pandemics) may have a major impact on the production and/or distribution of electricity.

One of the measures that may mitigate these risks is to consider the negotiation of long-term contracts with predefined prices and specific commercial terms on liquidation and damages, in order to reduce the volatility of the collection period by providing the cash flow that is necessary for operations and investments. Other measures that may mitigate operational risk may be represented by the ability of the Company to plan activity interruptions in the periods when the price of electricity decreases or the ability of the Company to conclude contracts to compensate for unrealized production when the units do not produce enough electricity because of unplanned activity outages.

Among the events that were external to the Company and which required and/or will require taking risk decisions are the Covid-19 pandemic and the modification of the framework which regulates the energy market.

Main risks and their management

a) The Covid-19 pandemic negatively affected societies and human activities all over the world. The isolation measures and mobility restrictions that were internationally adopted as methods of response to the spread of the pandemic accentuated the synchronized decrease of growth both regarding the real (production) activity and the activity of the financial services.

SNN estimates that the evolutions of 2021 remain uncertain, and will strongly depend on the evolution of the pandemic, especially the evolution of the new strains of the virus, the vaccination of the population, the degree to which the population complies with the protection measures, and the degree to which the business models, the investment sentiment and/or the consumption habits will incur modifications which will allow the recovery of economies to pre-pandemic levels.

In this context, SNN has adapted its activity during the pandemic in order to protect its personnel and business partners, and also in order to protect its financial results, and will continue to do so in 2021.

b) The modification of the energy market regulation framework is part of the actions carried out on an international level for global decarbonization purposes.

In this context, Romania and SNN are aligned to the actions carried out by the European Union, which completed a comprehensive review of the policy framework in the energy field by adopting a set of legislative acts generically called Clean Energy for all Europeans Package (or Clean Energy Package – CEP), for the purpose of facilitating the EU transition from the use of fossil fuels to clean energy, and in order to help the decrease by 40% of greenhouse effect gas until 2030, compared to the levels of 1990.

In this context, the clean energy produced by SNN is of strategic importance for Romania, and the projects for the development of reactors 3 and 4 of the power station of SNN and continuing the initiatives of small modular reactors are high priorities.

Main risks and their management

Counterparty risk

Counterparty risk is the risk of business partners not acting according to the terms and conditions specified in the concluded contracts, as a result of the failure, intentional (refusal to pay) or unintentional (inability to pay) to pay a debt to SNN, judicial reorganization, bankruptcy or the voluntary winding-up of a SNN counterparty.

SNN has commercial partners both as a seller and as a buyer of electricity, as well as a buyer of the goods, equipment and services that are necessary for performing its current activities.

In the context of market liberalization, SNN will seek to conclude predominantly long-term electricity sales contracts for most of its production capacity, this being a condition for ensuring the cash flow imposed by credit institutions, especially considering the additional funding that is needed to perform the investments. In order to mitigate this risk, the Company has a policy for selecting commercial partners based on their credit risk, seeking to conclude such contracts only with solvent traders.



Main risks and their management



Competitive risk

Competition risk must be analyzed in the context of aligning the day-ahead market (“PZU”) of Romania, in compliance with the price coupling mechanism of the markets from the Czech Republic, Slovakia and Hungary, and the Company is exposed to increased regional competition generated by future improvements, refurbishment, extensions and new constructions expected to be made by the manufacturers on the respective electricity markets. At the same time, renewable energy projects are very volatile in terms of production, due to the lack of forecasts on the availability of fuel sources (e.g. wind, solar energy).

Risk associated to investment/maintenance/refurbishment works

This risk is manifested in close connection to the funds of the Company, the procurement and maintenance plan, conducting studies and the analyses that are necessary for substantiating the plans, structure and training of the personnel, equipment / installations suppliers.

Risk associated to the absence of specialized labour force

This risk is manifested both in relation to the losses of specialized knowledge as a result of the retirement of the specialists of the Company, as well as in relation to specialists leaving for other better paid jobs, and also in the absence of programs for attracting qualified young people, to be trained and specialized both in the field of operation and maintenance, and in the fields related to the implementation of the proposed investment program.

Analysis of Company-specific risk factors

Registration	Risk category	Level	Impact	Mitigation method
1. Macroeconomic Environment				
1.1	Market risk	Medium	High	Long-term bilateral contracts, with fixed prices or well-defined price formulas.
1.2	Regulatory /legislative risk	Medium	Moderate	Using the best technologies that ensure environment durability. Continuous communication with the authorities
1.3	Currency risk	Medium	High	Negotiating price conditions including the currency risk.
2. Operational environment				
2.1	Operational risk	Low	High	Maintaining high operation and production standards.
2.2	Counterparty risk	Medium	High	Well-designed and detailed long-term contracts Applying a rating system for the parties with whom bilateral contracts are concluded. Securities (cash in Company accounts, letters of guarantee, insurance policies, commitment letters, security accounts).
2.3	Competition risk	Medium	Moderate	Continuously monitoring of the markets. Applying a cost control policy.

The "level" of the risk category defines the probability of occurrence: high, medium and low.

The "impact" of the risk category defines the potential monetary impact on the company performance: strong, moderate, weak.

Main risks and their management

Improving the internal risk management framework

In order to develop and improve its reporting, inspection and risk management capabilities, the Company performs actions intended to continuously improve its risk management framework, and the performed measures include:

- Increasing the degree of collecting risk information and using it in taking informed decisions, risk-wise;
- The reduction of the times for the dissemination of risk information (risk management), including by computerizing support instruments, a purpose for which SNN implemented in 2020 a risk management application, which improves the dissemination of risk information in the organization, thus contributing to taking informed risk-based decisions;
- Periodically revising the counterparty risk for the counterparties on the energy markets and for issuers of security instruments in favor of SNN;
- Increasing the level of Company personnel knowledge on risk management;
- Reviewing and/or recalibrating / periodically adjusting risk management instruments.



Risk Insurance

Significant risk insurance policies on SNN level are as follows:

- 1) Property Insurance Policy - Units 1 and 2 CNE Cernavoda and FCN Pitesti - all types of risks, including mechanical and electrical destruction, for a cumulated liability limit (insured amount) of USD 1,560,000.
- 2) Third party liability insurance policy for nuclear damage with a liability limit (insured amount) of DST 300,000,000.
- 3) Civil / professional liability insurance policy for SNN directors and managers ("D&O") for a liability limit (insured amount of EUR 33,000,000).

Besides these insurance, the Company has concluded RCA policies, CASCO policies (voluntary motor insurance) and an insurance policy against work accidents and occupational diseases for employees.



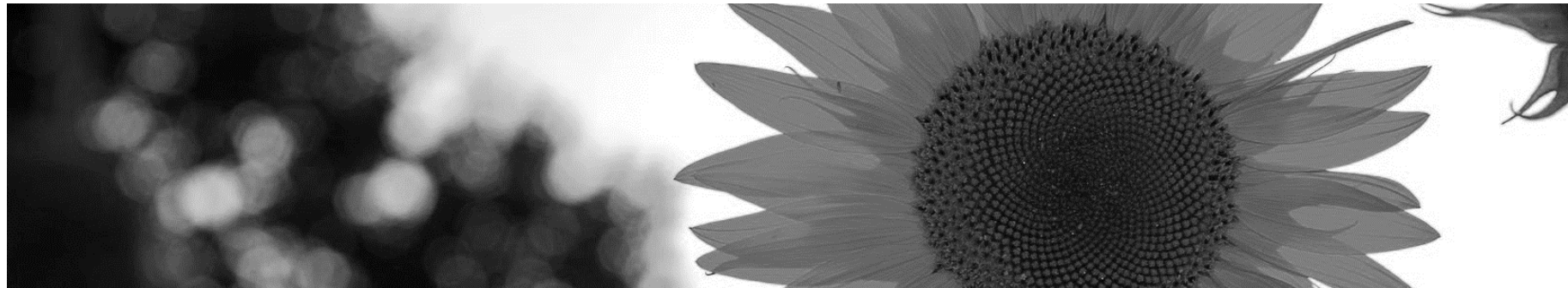
Main risks and their management

Annual assessment of the internal management inspection system

In order to ascertain the degree of implementing the internal inspection standards as of December 31, 2020, the company performed the annual self-assessment and carried out the following actions:

- Debating in the work session of initiating the operation of self-assessing the implementation degree of the internal/management inspection standards, and following the discussions the company agreed on the action performance schedule, according to the notification drafted by the Technical Secretariat within the Financial and Managerial Inspection Department.

Main risks and their management



- **Implementing the self-assessment function and assessing the implementation degree of the internal inspection / management standards by the Resolution of the Chief Executive Officer of S.N. Nuclearelectrica S.A., namely:**

- Filling in by each department from the organizational chart of the company the “Questionnaire for the self-assessment of the stage for implementing the internal management control standards”, provided in annex no. 4.1, and the department manager assuming responsibility for the accuracy of the data, information and findings from them, based on the management responsibility principle;
- Drafting by the technical secretariat of the Monitoring Commission for the “Synthetic situation of the self-assessment results”, provided in annex no. 4.2, by centralizing the information from the self-assessment questionnaires, signed and transmitted by the department managers;
- Drafting by the technical secretariat of the Monitoring Commission of Chapter II from the “Centralizing report on the stage for the implementation and development of the internal management control system”;

- Assessing the compliance degree of the internal management control system with the internal management control standards, in relation to the number of implemented standards.

- The Commission for monitoring the internal management system approved the documentation and results of the annual self-assessment operation for the implementation stage of the internal inspection / management standards on the level of SNN, namely:

- Centralizing report on the stage of implementing and developing the internal inspection / management system as at December 31, 2020;
- Implementation stage of the internal inspection / management standards, according to the results of the self-assessment as at December 31, 2020;
- Report on the internal inspection / management system as at December 31, 2020 with the “Synthetic report on the results of the self-assessment”;
- The Internal Management Inspection System Development Program 2021.

Main risks and their management

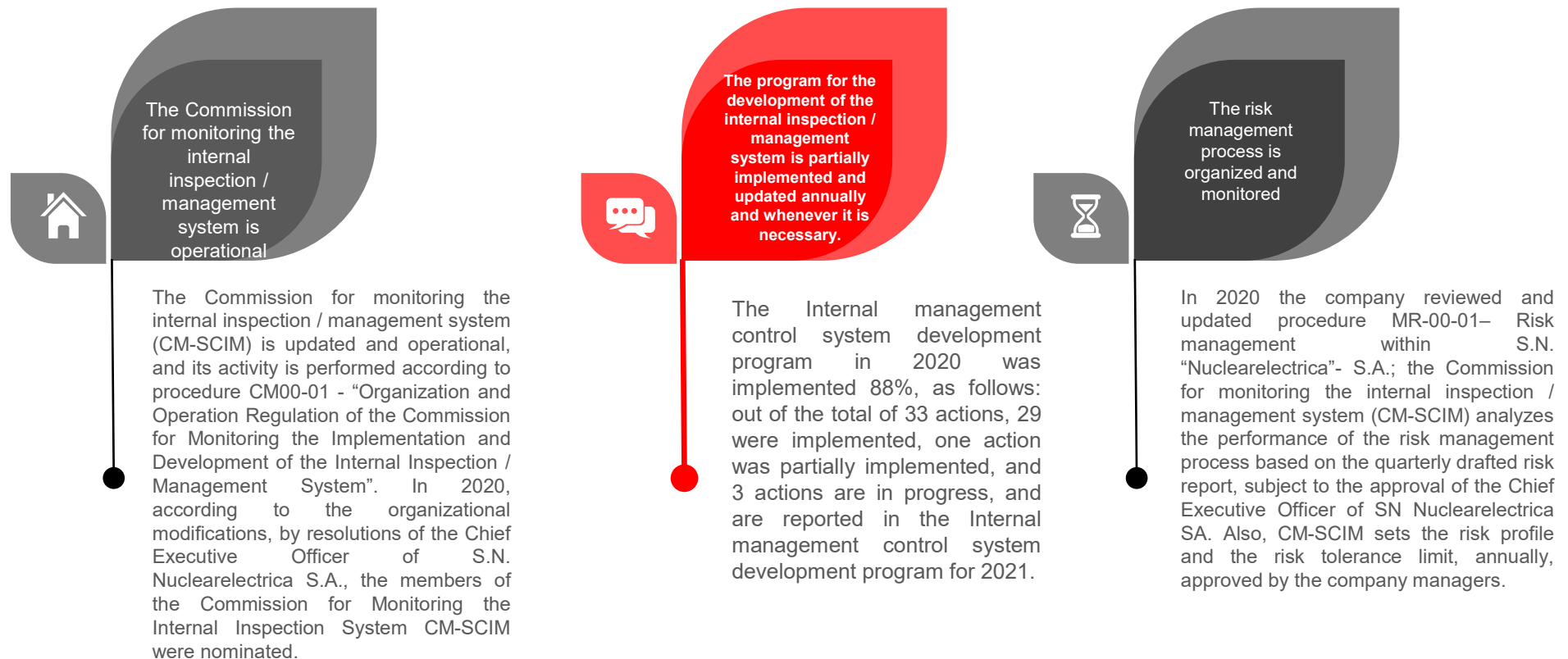
The self-assessment operation showed that S.N. Nuclearelectrica S.A. has an internal inspection / management system whose design and application allows the managers and, as the case may be, the Board of Directors, to provide reasonable assurance that the resources allocated to achieving the general and specific objectives were used legally, regularly, effectively, efficiently and in an economical manner.

Thus, by “Report on the internal management system as at December 31, 2020”, drafted according to art. 4 par. (3) of Government Ordinance no. 119/1999 on the internal/management inspection and preventive financial inspection (republished), as further amended and supplemented, and according to the Instructions annexed to Order no. 600/2018, the Chief Executive Officer of SNN states that the result of the self-assessment “is based on a realistic, fair, complete and trustworthy assessment of the internal inspection / management system, formulated based on its self-assessment based on the principle of truth and assuming responsibility by the managers. The internal inspection / management system comprises inspection mechanisms, and the application of the measures for increasing its effectiveness is based on the assessment of risks”.



Main risks and their management

Regarding the characteristics of the specific internal inspection / management system of the organization, the annual report on the internal inspection / management system as at December 31, 2020 ascertained the following aspects:



Main risks and their management



The documented procedures are drafted, inventorying procedural activities and updating the procedures represent permanent activities, and a continuous process in which every functional structure of SNN is involved, as follows:

- Within SNN - Bucharest headquarters, the procedures related to the processes and activities are as follows: 22 processes documented in process charts; 148 procedures which describe specific and procedure-based activities.

The issued documents are annually analyzed in order to determine the adequacy to work practices and / or the necessity to update them.

- Within the NFP Pitesti Branch, the procedures related to the processes and activities are as follows: 24 processes documented in process charts; 53 system procedures; 62 general procedures; other 833 documents representing: technical procedures, guarantee inspection, environment, radioprotection, occupational health and safety, fire protection, physical protection, etc., (radioprotection manual) that regulate operation, technological, inspection and control activities.

Documents are annually analyzed in order to determine the adequacy to work practices and / or the necessity to update them.



Main risks and their management

- Within the NPP Cernavoda branch the procedures related to the processes and activities are as follows: 30 RD procedures - also called Reference Documents, describing the 28 processes of the power station plus 2 other reference documents that do not describe processes, procedures which specify the operating policies and principles or the radio protection regulation - RD-01364-L001, RD-01364-RP009; 147 SI procedures - also called power station instructions, which detail the sub-processes and activities within the processes; 277 PSP procedures - specific process procedures which indicate the performance of process segments and present the interface with other processes; Other documents: IDP (internal departmental procedures), OM (operating manuals), OI (operating instructions), IR (information reports), OMT (Operational Maintenance Testing), AOP (abnormal operating procedures), SOS (standard operating sequences), etc.

Documents are analyzed with preset frequencies (every 3 or 5 years depending on the type of the document) in order to determine the adequacy to work practices and / or the necessity to update them.

- The performance monitoring system is established and assessed for

the objectives and activities of the entity, by performance indicators.

- In 2020, according to procedure CM-00-03 - "Setting and monitoring objectives within SNN SA", within the organization starting from the general objectives of the company, the objectives of the SNN subunits were updated and cascaded into specific (departmental) objectives, with related indicators and targets, in order to ensure a system for monitoring and reporting the stage of implementing general and specific objectives, by key performance indicators (KPI).

Thus, the self-assessment showed that as of December 31, 2020, the internal inspection / management system of SN Nuclearelectrica SA is according to the standards comprised in the internal inspection / management code, and all 16 inspection standards are implemented.

Administration financial inspection



The Financial and Management Control of S.N. Nuclearelectrica S.A. is organized and implemented in compliance with the provisions of Government Emergency Ordinance no. 94/2011 regarding the organization and operation of the economic-financial inspection, approved by Law no. 107/2012 and GR no. 1151/2012 on the approval of the Methodological norms related to the organization and implementation of the administration financial inspection, covering all the structures from the organizational chart of the company.

The organization of the administration financial inspection within S.N. Nuclearelectrica S.A. is based on the necessity that on the level of the company there is an efficient inspection system, ensuring the integrity of the patrimony; the enhancement of the budget and economic-financial discipline; the compliance with the legal provisions applicable to the activity, the internal regulations and decisions; increasing efficiency in using the allocated resources.

The Financial Administration Inspection is an economic instrument that is subscribed to the objectives assumed by the administration plan on the consolidation of the internal inspection system, and serves the interests of SNN by:

actions of preventing and/or detecting dysfunctions;

verification actions, namely granting the preventive inspection approval for the revenue and expense draft.



Administration financial inspection

Development and improvement of the financial administration inspection enhances the quality, performance and responsibility of financial management in the process of using the resources of the entity.

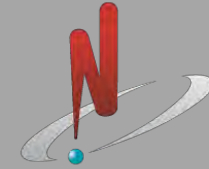
The objectives of the administration financial inspection are:

Ensuring the integrity of the patrimony as a monetary expression of the economic means with their financing sources, and the financial results of the economic activity

Enhancing budgetary and economic-financial discipline;

Complying with the legal provisions, regulations and internal decisions

Increasing the efficiency of using the allocated resources by verifying the legality, regularity and compliance of operations, identifying the weaknesses of the internal inspection system that generated errors or allowed the occurrence of fraud, inadequate or fraudulent administration;



NUCLEARELECTRICA

The goal of the administration financial inspection is to inform the Board of Directors of S.N. Nuclearelectrica S.A. and communicate to the Chief Executive Officer performance information, and information regarding:

- performing operations in an orderly, ethical, economic and efficient manner;
- complying with responsibility obligations; compliance with the applicable laws and internal regulations;
- protecting resources against losses, abuses and damages;
- enhancing the internal inspection system, in order to efficiently prevent irregularities and recover the losses caused by irregularities or fraud.

Administration financial inspection



Within S.N. Nuclearelectrica S.A. the organization of the administration financial inspection complies with the segregation principles, and the Department of Financial and Management Inspection (DCFM) is responsible for performing the administration financial inspection (CFG) in all subunits of SNN (head office, Cernavoda NPP branch, NFP Pitesti branch) and has operational independence by being directly subordinated to the Chief Executive Officer.

Also, according to the legal provisions, the Board of Directors is quarterly, or whenever it is necessary, informed on the implementation and results of the financial administration inspection.

Within SNN, the administration financial inspection is performed based on the annual activity schedule and half-year schedules approved by the Chief Executive Officer of the Company, based on its own specific procedures, issued according to the legal provisions applicable to the activity - GEO no. 94/2011 on the organization and operation of economic-financial inspection, approved by Law no. 107/2012 and GR no. 1151/2012 for approving the Methodological norms regarding the manner of organizing and exercising administration financial inspection and by assimilating the best practices in the field.

In 2020, the specific objectives of the financial administration inspection activity were achieved, the approved activity program (20 inspection missions) was entirely implemented, and all the 3 subunits, the Headquarters, the CNE Cernavoda Branch and the FCN Pitesti Branch, were included in the verifications.

Also, in 2020, besides the approved inspection program, 8 unannounced / thematic operations ordered by the Chief Executive Officer, outside the working hours, operational guidance actions and for optimizing internal inspection activities, according to the legal attributions of drafting economic and financial analyses for the management in order to substantiate decisions and improve performance, and according to the internal regulations on internal inspection verification, guidance and optimization actions, which serve to the management and interests of SNN by preventing or detecting dysfunctions in order to assimilate best practices and implement actions for increasing efficiency.



Administration financial inspection

In summary, the inspection activities targeted the following general objectives:

The tax on the revenues obtained by non-resident parties; substantiating documents, the calculation method and complying with bank transfer deadlines;

Manner of acknowledging services provided by third parties; accuracy, necessity and usefulness of incurred expenses;

The accounting and fiscal treatment of transportation means from its own vehicle fleet;

Complying with the legal provisions in the implementation of the revenue and expense budget of SNN SA.



Complying with the legal provisions in the substantiation of the revenue and expense budget of SN Nuclearelectrica SA



Monitoring the implementation of the measures set following the administration financial inspection, asking for plans of measures, the accuracy and truthfulness of reports regarding the implementation of the measures approved by the inspection reports drafted by DCFM, verifying the compliance with the set deadlines;



The manner of acknowledging current assets and assets such as inventory, including spare parts, from the category of tangible assets; the manner of complying with the legal regulations and internal regulations on receiving, keeping, preserving and using current assets such as inventory, including spare parts, from the category of tangible assets;



Complying with the legal provisions and internal regulations regarding collections and payments in RON and foreign currency in cash by the cash department: checking the manner of making cash payments (business trips, small purchases); checking the manner of drafting and using substantiating documents regarding payments in cash in RON and foreign currency; checking the manner in which the accounting records are managed regarding payments and collections in cash (in RON and foreign currency);

The deficiencies found by the inspection acts approved by the management of SNN represent non-compliance cases, deviations from the compliance with legal acts or internal procedures in force, for which 45 corrective measures, deadlines and responsibilities for resolution were established. SNN has adhered to the basic values, principles, goals and monitoring mechanism of the National Anti-corruption Strategy for 2016-2020, to this end expressing its resolute decision to:

Administration financial inspection

- condemn corruption in all its forms and to states its commitment to fight against this phenomenon by all legal means at its disposal;
- take corruption prevention actions as elements of the management plans and to assess them regularly as part of management performance in order to increase the institutional integrity
 - support and promote the implementation of anti-corruption legal framework which is mainly targeted at preventing corruption, increasing the level of anti-corruption awareness, fighting against corruption based on administrative actions, approving the integrity plans and developing the related monitoring and assessment system
 - strengthen the operational independence of internal inspection and audit structures and boost the implementation of internal/management inspection systems;
 - perform a regular self-assessment of the level of mandatory prevention action implementation
 - adopting all the actions required to avoid the conflicts of interests and incompatibilities, as well as to put the public interest above any other interest, by complying with the transparency principle applied to the decision-making process and free access to public interest information.



Thematic aspects: environment matters

Cernavoda NPP ensures the observance of the fundamental principles regarding the management of radioactive waste and radioactive emissions resulting from the operation of the plant.

Environment matters

Significant information regarding the prevention and control of pollution

Cernavoda NPP ensures the observance of the fundamental principles regarding the management of radioactive waste and radioactive emissions resulting from the operation of the plant.

Radioactive effluents are discharged into the environment only if:

- Radioactive emissions are within the limits authorized by CNCAN;
- The emissions are controlled;
- The control of radioactive emissions is optimized according to the ALARA principle.

The Radiation Protection Department identifies all radioactive effluent release routes.

All significant routes of release of radioactive effluents are monitored based on approved procedures using appropriate measuring equipment and methods.

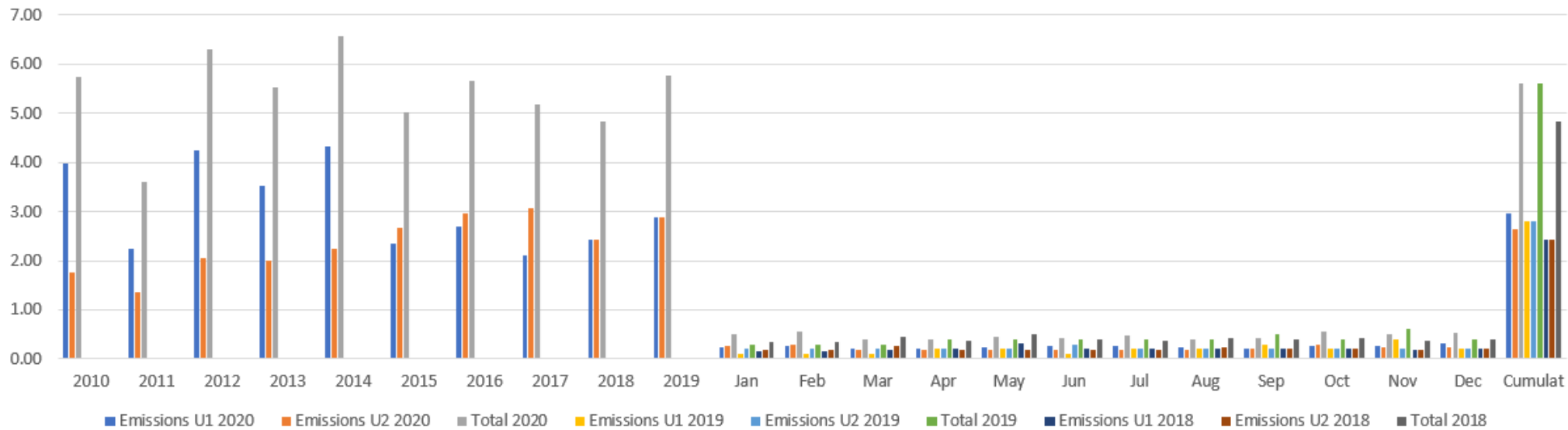
The effluent samples are analyzed within the Cernavoda NPP laboratories or the laboratories accredited by CNCAN in order to determine the quantities of radioactive materials discharged.

Actual discharges of liquid and gaseous effluents are controlled by careful operation of the power plant systems in compliance with the operating procedures.

The operating characteristics of the power plant systems are carefully checked by the responsible personnel according to the power plant processes, in order to ensure that the systems are operating according to the design.

The operation objectives are set so that the doses collected by the population as a result of gaseous and liquid effluent discharges comply with the limits and restrictions approved by CNCAN (200 microSv / year 100 microSv / year / unit) and the internal administrative limits (8.5 microSv/year 4.5 microSv/year/U1, 4 microSv/year/U2). According to the performance indicator for the monitoring of the radiological impact on the environment and the population, the radioactive emissions from U1 and U2, expressed in dose units (microSv) for one person in the critical group were recorded a lot under the dose restriction approved by CNCAN.

Radioactive emissions in the environment U1+U2 (microSv)



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Emissions U1 2020	3.98	2.24	4.25	3.53	4.33	2.35	2.70	2.10	2.42	2.88	0.232	0.266	0.211	0.200	0.249	0.254	0.275	0.229	0.212	0.252	0.274	0.309	2.962
Emissions U2 2020	1.75	1.37	2.05	1.99	2.24	2.66	2.97	3.07	2.42	2.89	0.260	0.301	0.184	0.196	0.191	0.177	0.192	0.174	0.206	0.302	0.225	0.233	2.641
Total 2020	5.73	3.61	6.30	5.52	6.57	5.01	5.67	5.17	4.84	5.77	0.492	0.567	0.395	0.396	0.439	0.431	0.466	0.403	0.418	0.554	0.499	0.542	5.604
Emissions U1 2019											0.100	0.100	0.100	0.200	0.200	0.100	0.200	0.200	0.300	0.200	0.400	0.200	2.800
Emissions U2 2019											0.200	0.200	0.200	0.200	0.200	0.300	0.200	0.200	0.200	0.200	0.200	0.200	2.800
Total 2019											0.300	0.300	0.300	0.400	0.400	0.400	0.400	0.400	0.500	0.400	0.600	0.400	5.600
Emissions U1 2018											0.160	0.160	0.190	0.200	0.320	0.210	0.200	0.200	0.200	0.200	0.180	0.200	2.420
Emissions U2 2018											0.190	0.190	0.270	0.180	0.180	0.180	0.180	0.230	0.210	0.220	0.180	0.210	2.420
Total 2018											0.350	0.350	0.460	0.380	0.500	0.390	0.380	0.430	0.410	0.420	0.360	0.410	4.840

The monitoring of the radioactivity of environmental factors is carried out in compliance with the requirements of the national and European legislation and the recommendations of international agencies, with the purpose of assessing the potential changes in the level of radioactivity in the environmental factors specific to the area and of confirming the minimal impact of the operation of the Cernavoda NPP on the population and the environment.



Waste Management Strategy at Cernavoda NPP

In compliance with the Law 111/1996 on the safe deployment, regulation, authorization and control of nuclear activities, and with the Fundamental Norms for the safe management of radioactive waste, issued by the Order of the President of CNCAN no. 56 of March 25, 2004, the Norms regarding the classification of radioactive waste, issued by the Order of the President of CNCAN no. 156/2005, the safety rules for radioactive waste pre-storage activities, used closed sources and spent nuclear fuel, issued through CNCAN Order no. 148/2017, NPP Cernavoda is responsible for managing the radioactive waste generated by its own activity and has the following obligations:

- a) Collection, segregation, characterization, treatment and intermediate storage of radioactive waste under safe conditions;
- b) Treatment and conditioning of radioactive waste for final disposal in compliance with the acceptance criteria to be established issued by AN&DR and authorized by CNCAN;
- c) Release, under the CNCAN authorization regime, of the wastes meeting the release requirements in order to reduce the total volume of waste to be conditioned for final disposal;
- d) Monitoring the total radioactivity activity that accumulates in the Solid Radioactive Waste Intermediate Storage for falling within the limits of the operating authorization;
- e) Reporting of radioactive waste specific information regarding the volume produced and their characteristics to CNCAN and AN&DR according to the requirements of the mentioned norms, in force, for filling in the national database.

Waste Management Strategy at Cernavoda NPP



The total volume of solid radioactive waste, for both units of NPP Cernavoda, generated in 2020, was 60.07 m³. In total, until the present, in 1996 - 2020, the total volume of solid radioactive waste, for both units, is of 1005.94 m³.

The production of energy through nuclear processes does not lead to the release of CO₂ emissions. On the contrary, through the operation of the two CANDU reactors at Cernavoda NPP, the release into the atmosphere of 12 million tons of CO₂ per year is avoided.

A group of diverse professionals are gathered around a table in a meeting. A woman with curly hair is shaking hands with a man with glasses. Other people are looking on, some with coffee cups and documents on the table. The background shows a wall with sticky notes.

Thematic aspects: social and workforce aspects

The employees' activities are performed according to the established work schedule, the job description, and the Organization and Operation Regulation ("ROF")



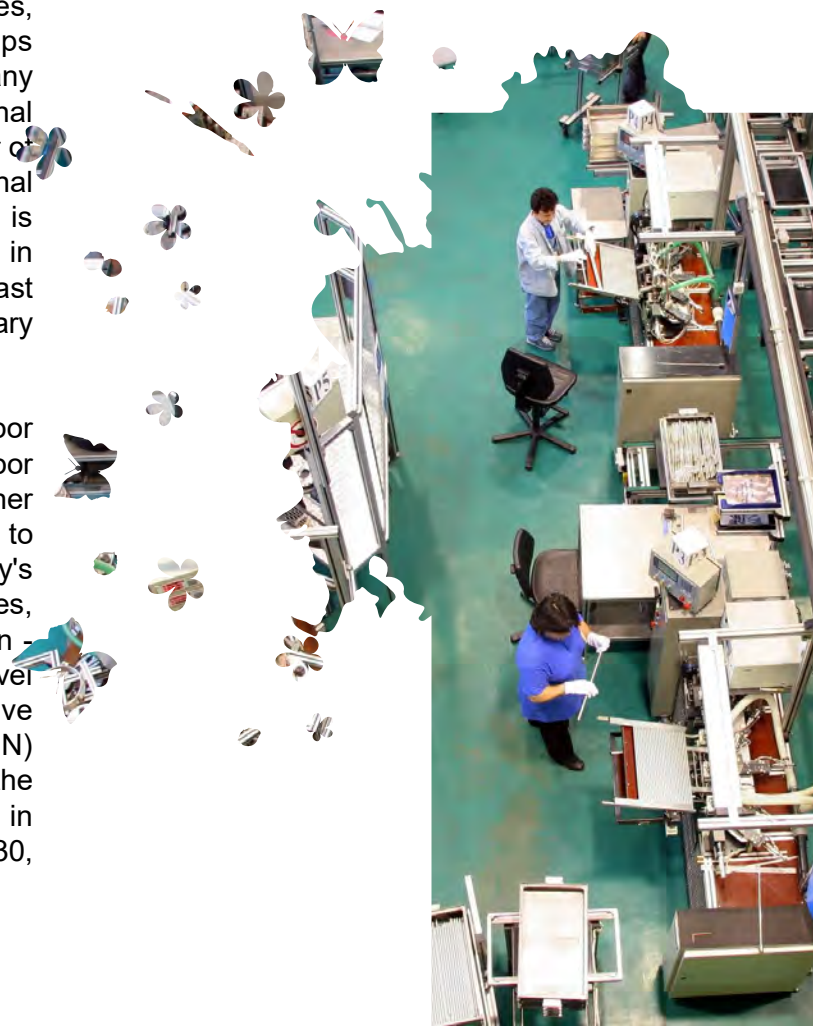
Social and workforce aspects

The rights and obligations of employees are stipulated in the Collective Employment Agreement ("CCM") of SNN, in individual employment contracts ("CIM") and Internal Regulations of the Company. The employees' rights and obligations stipulated in the CLA are formulated in full observance of the human rights, the right to work in compliance with the applicable law, employees benefiting from equal treatment, without discrimination, corresponding to the international standards of the nuclear industry, in conjunction with the law and the motivational packages tailored to the macro- and micro-economic specificity in Romania.

The employees' activities are performed according to the established work schedule, the job description, and the Organization and Operation Regulation ("ROF"), updated in 2020 by including all the organizational entities within SNN, including within the Company branches, by indicating the subordination and coordination relations of the processes, including between the head office and branches. The updated Internal Regulations were approved by the Board of Directors of SNN by Decision no. 107/June

15th, 2020. The main activities, duties, responsibilities as well as the relationships between the departments of the company are stipulated in the updated Internal Regulations of the Company. The manner of enforcement of legal provisions and internal legislative provisions on labour discipline is set by the Internal Regulations, reviewed in November 2018, and updated in the last part of 2019, applicable since February 10th, 2020.

The normative act that governs the labor relationships in the Company is the Labor Code - Law no. 53/2003, as further amended and supplemented, according to which, during 2020, between the Company's Board of Directors and its employees, represented by the Cernavoda NPP Union - union which is representative at unit level with legal personality, the Collective Employment Contract of SNN (CCM SNN) was signed and registered with the Bucharest Territorial Labor Inspectorate in period December 01, 2020 - November 30, 2021.



Social and workforce aspects



The company currently uses a standard individual employment contract both for the employees hired for a definite period of time and for the employees hired for an indefinite period. The standard individual employment contract complies with the clauses stipulated by Order no. 64/2003 on the approval of the framework template of the Individual Employment Contract.

The company evaluates its employees according to an internal procedure, annually or periodically, at an interval of 3 - 6 months (in the case of some personnel members who are under observation).

The Internal Regulations applicable at Company level, contain all the provision categories provided by the Labor Code. The Internal Regulations were made available to the employees on the Intranet page of the company and have full effect on the employees since the date of the publication. Social and labor-

related aspects are transposed into SNN's Collective Labor Agreement ("CLA") and SNN SA's Internal Regulations ("IR").

The Collective Labor Agreement within the organization includes all the rights and obligations of the parties, in compliance with the Internal Regulations, the Code of Conduct and are transposed into the Individual Labor Agreements concluded with no discrimination.

The employment is done following the selection and recruitment process, which is based on the provisions of the Labor Code, the Collective Labor Agreement negotiated between the representatives of the management and the representative trade unions according to Law no. 62/2011, Law on Social Dialogue and the internal procedures in force.

Right of free association



SNN employees have the right of free association and participation in union activities according to the internal regulations and the individual employment contract of SNN employees.

In SNN there are 4 employee unions: The NPP Cernavoda union, the SLEN 90 union, the Operatom union and the NFP Pitesti union

Employee consultation processes - Consultations with the trade unions on topics related to nuclear security (in CSSM).

Informing the unions on the financial statements of the company and the revenue and expense budget

Social and workforce aspects

The relationship with the trade unions is permanent and consists in meetings/consultations with them, and the provisions of the SNN CLA are negotiated following permanent consultations of the Commission appointed by the management, as well as by the trade unions.

As far as the human capital management is concerned, the company is involved and constantly invests in the quality of workers, through continuous training and preparation and by promoting the meritocracy as component part of the motivation system documented and implemented within SNN SA.

SNN maintains a tradition regarding the attention to the training of young specialists and the support of university study programs by supporting professional practice programs and involving the students in approaching current topics and of interest for SNN SA in practical academic works and those for

taking the bachelor or master degree exams.

The management team of SNN SA intends to develop the collaboration with the university environment through a greater involvement regarding the training of practical skills of young people, becoming familiarized with their expectations and needs, and adapting their own existing programs mainly as part of the company's operating activities adapted thereto, in order to increase the attractiveness of SNN and the recognition of the employer brand. With the promulgation of Law no.177 of July 19, 2018 on internship, SNN SA appreciated the significant contribution made by this legal provision in increasing the professional quality, both informal and formal, of young specialists, by attracting, motivating and actively involving them within the company, and the selection of candidates was initiated in 2020 for an internship program at the SNN headquarters



Social and workforce aspects



The company's management is fully involved in the organizational development, the creation of a culture adapted to the current economic environment, the increasing challenges the labor market is faced with, and combating the phenomenon of migration. In this regard, a complex program of organizational diagnostics was accessed, run with the support of a specialized consultant and with relevant expertise in this field, in order to highlight the strengths and weaknesses in the way SNN SA is conducting its business, as well as to identify the causes generating them, for organizational development by exploiting opportunities and removing dysfunctionalities.

In the context imposed by the coronavirus pandemic, professional activities were maintained by implementing continuity plans on the level of each SNN unit, which contained the isolation of the essential

personnel in order to ensure the operation of the production capacities within CNE Cernavoda. Also in this context, besides the sanitary protection measures, medical filter, covid testing and social distancing, the company adopted forms of remote working by allowing employees to work from home, and subsequently by introducing teleworking, a situation which required the adaptation of CCM and the related HR policies.

SNN SA meets all the premises of a brand of employer, credible inside and attractive outside, with any campaign for the attraction and retention of personnel starting from the clear establishment of the objectives, the identification of talents and their development, models of working as part of a team and individually, allowing for the valorization of the abilities of every employee.

Workforce diversity monitoring



SNN monitors the evolution of the workforce regarding the diversity pertaining to age, gender, work conditions, education



SNN employees are recruited according to the provisions of the Labor Code, by ensuring the equal and ethical treatment of candidates



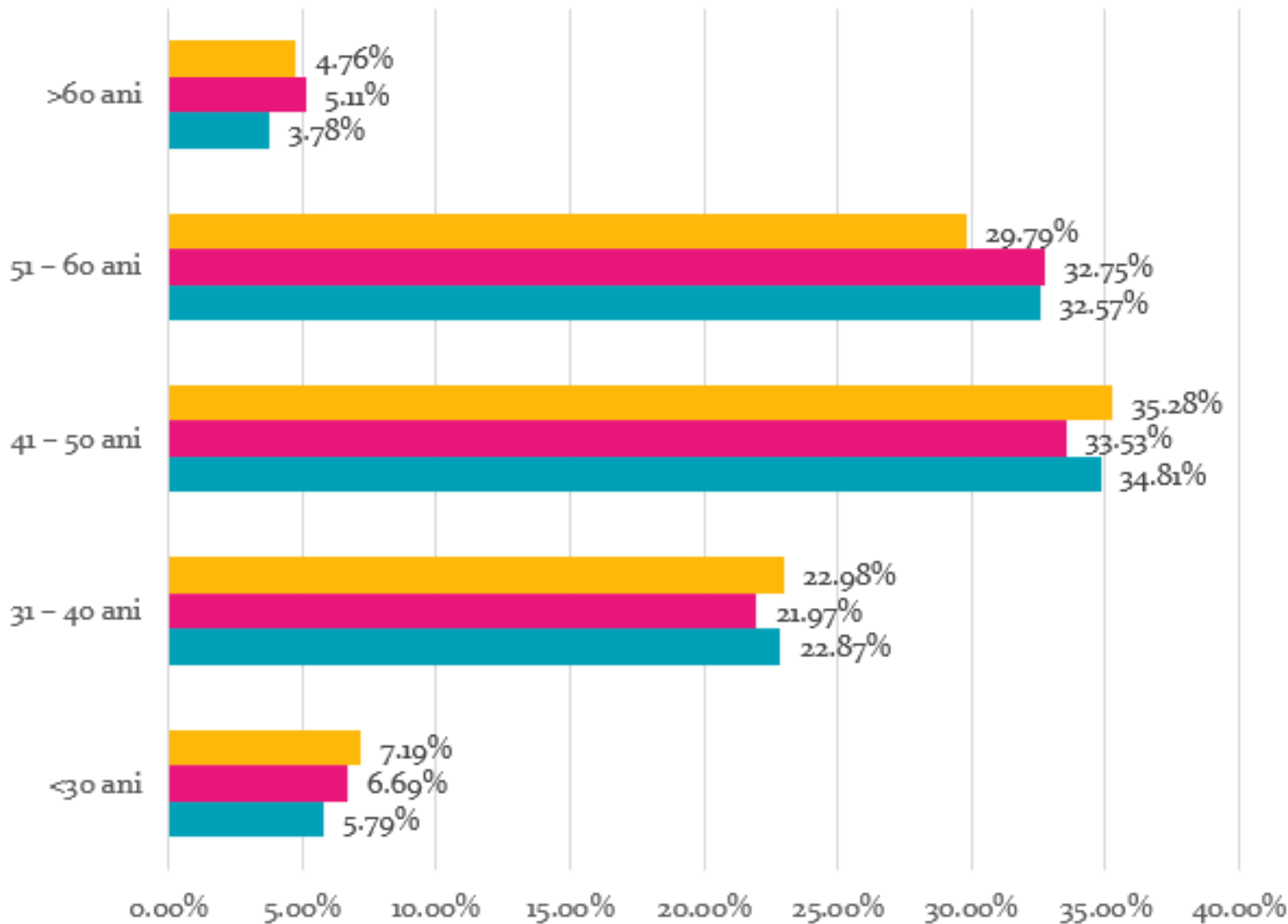
Employees benefit from training regarding the ethical treatment and non-discrimination by drafting and publishing «The Business Ethics and Code of Conduct of SN Nuclearelectrica SA», «The ethics and compliance program of SN Nuclearelectrica SA» «The compliance guide» available on the SNN website, in the Investor Relation section, Regulations



The management and administrative responsibilities on ensuring equality, diversity and freedom of expression are assumed according to the Ethics Code of the Board of Directors, available on the SNN website, in the Investor relation section, Regulations

Key Performance Indicators (KPIs)

Proportion of personnel distributed by age categories
(2020, 2019, 2018)



Key Performance Indicators (KPIs)

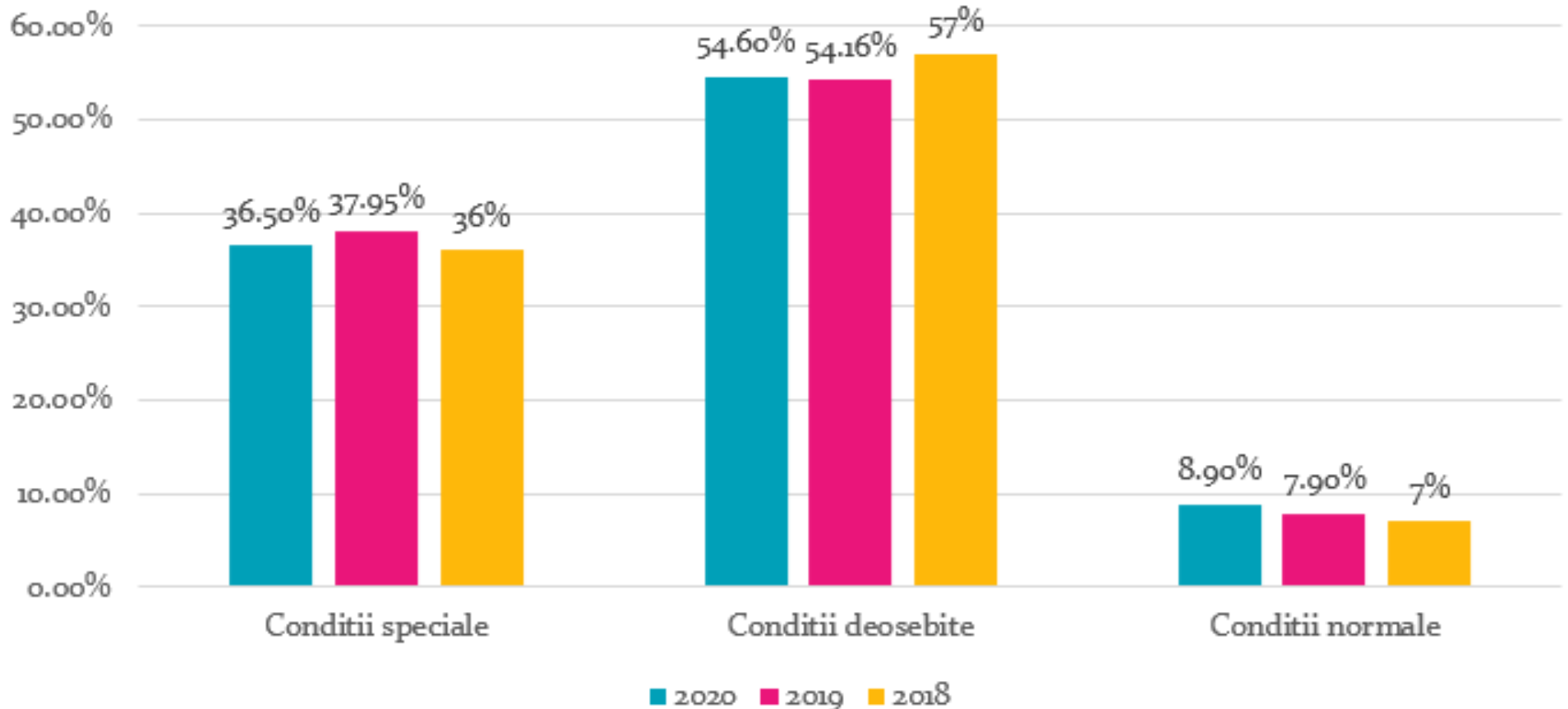
Employees entitled to parental leave, per gender

The average of employees who are raising children, by genders, is presented in the table below:

Year	NPP	NFP	SNN Head Office	Average	
2020	0.40%	1.40%	6.00%	0.99%	Women raising children
	0.07%	0.28%	0.00%	0.1%	Men raising children
2019	0.73%	1.10%	6.16%	1.16%	Women raising children
	0.12%	0.00%	0.00%	0.09%	Men raising children
2018	0.51%	0.56%	3.08%	0.68%	Women raising children
	0.13%	0.00%	0.00%	0.10%	Men raising children

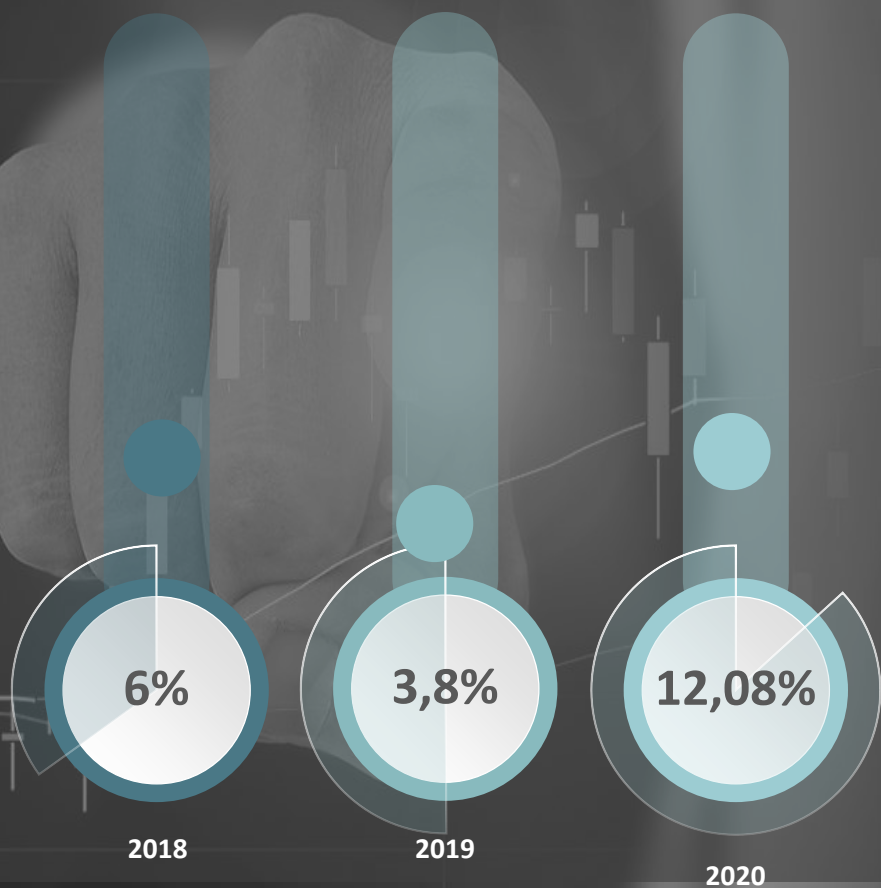
Key Performance Indicators (KPIs)

Employment based on working conditions (2020, 2019, 2018)

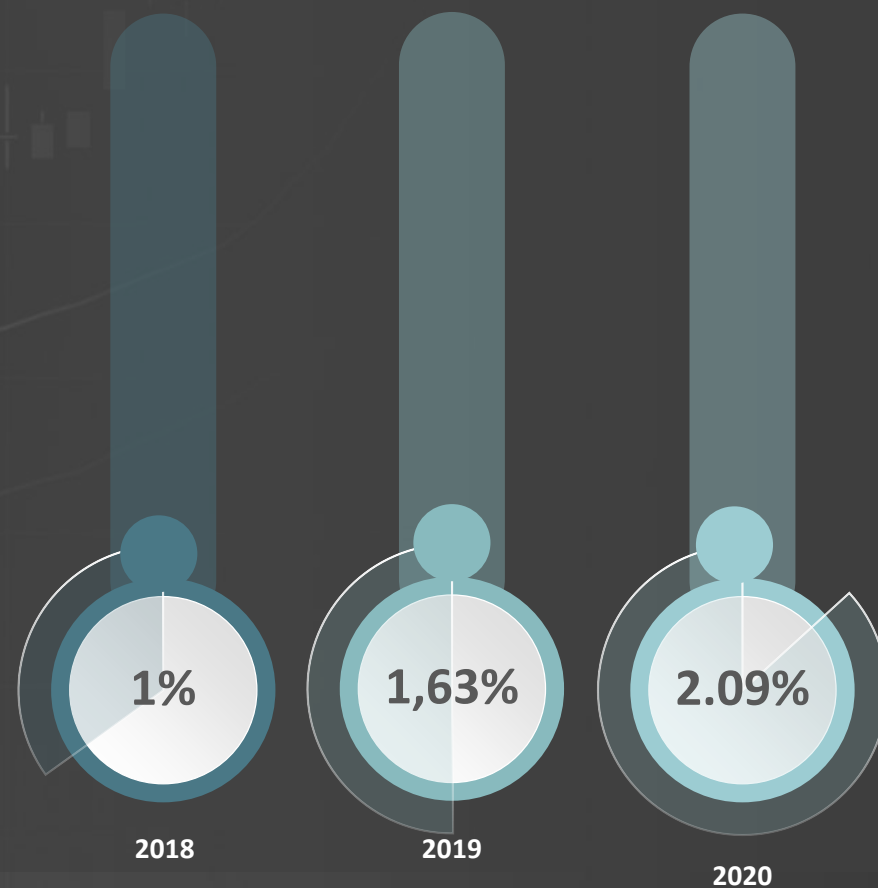


Key Performance Indicators (KPIs)

Personnel fluctuation rate:

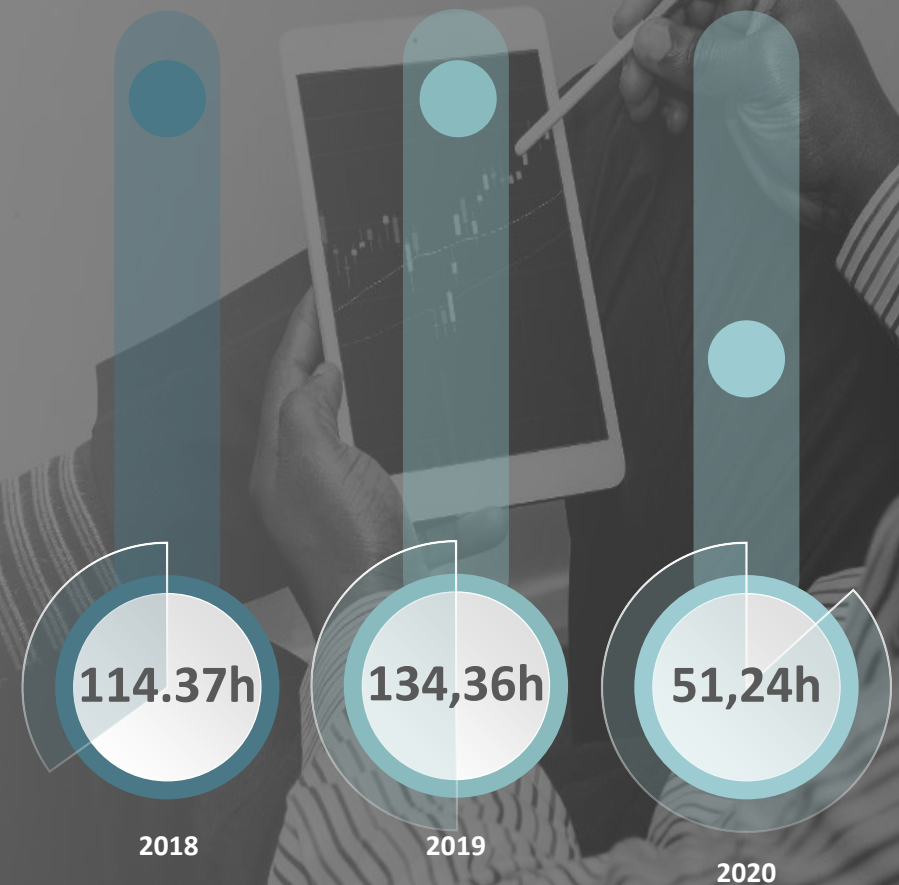


Share of employees working with temporary contracts, per gender - Very low.



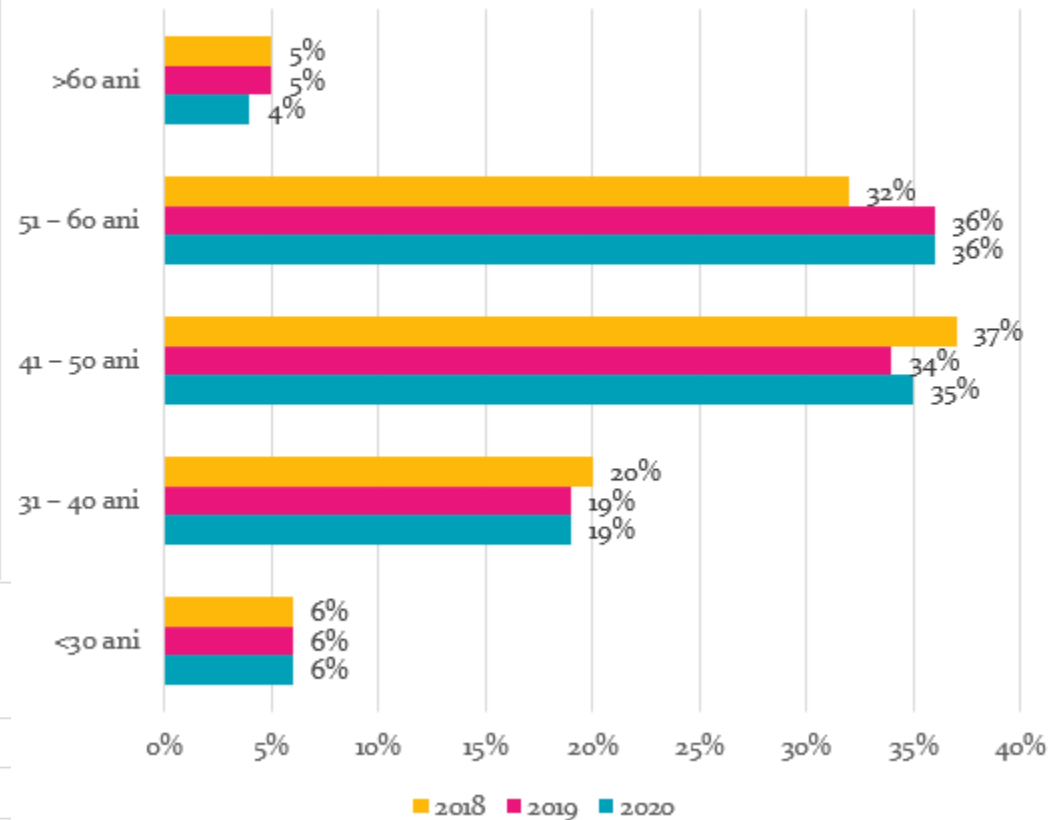
Key Performance Indicators (KPIs)

The average number of training hours per year for each employee, per gender - The degree of continuous and initial training in a nuclear power plant is a mandatory requirement and reaches an average of:

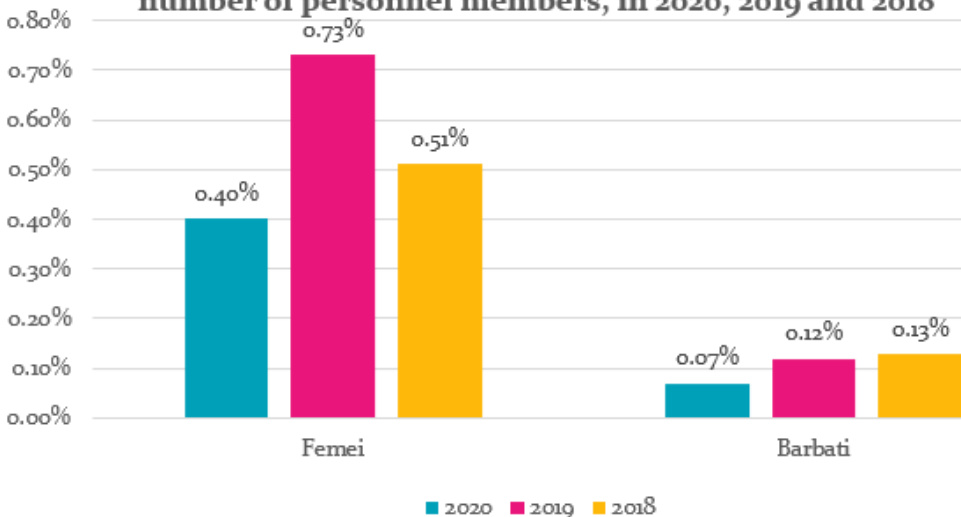


Key Performance Indicators (KPIs)

Cernavoda NPP - Structure of the personnel, per categories of age, in 2020, 2019 and 2018

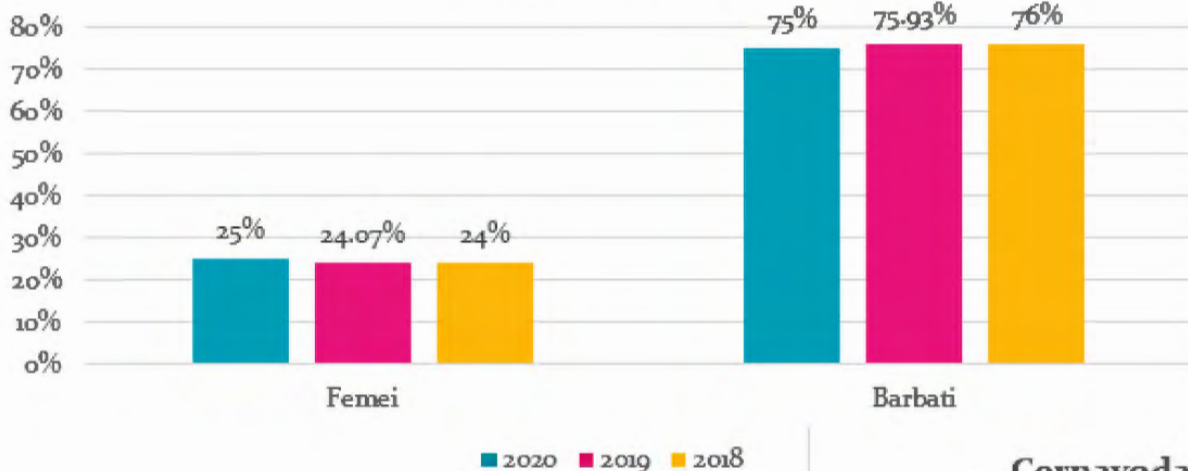


Cernavoda NPP - Share of the number of personnel members on leave for raising children from the total number of personnel members, in 2020, 2019 and 2018

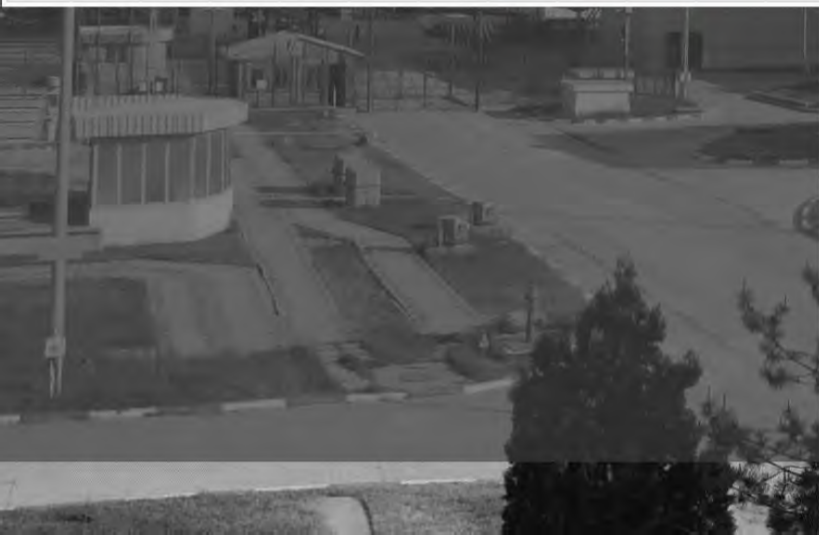
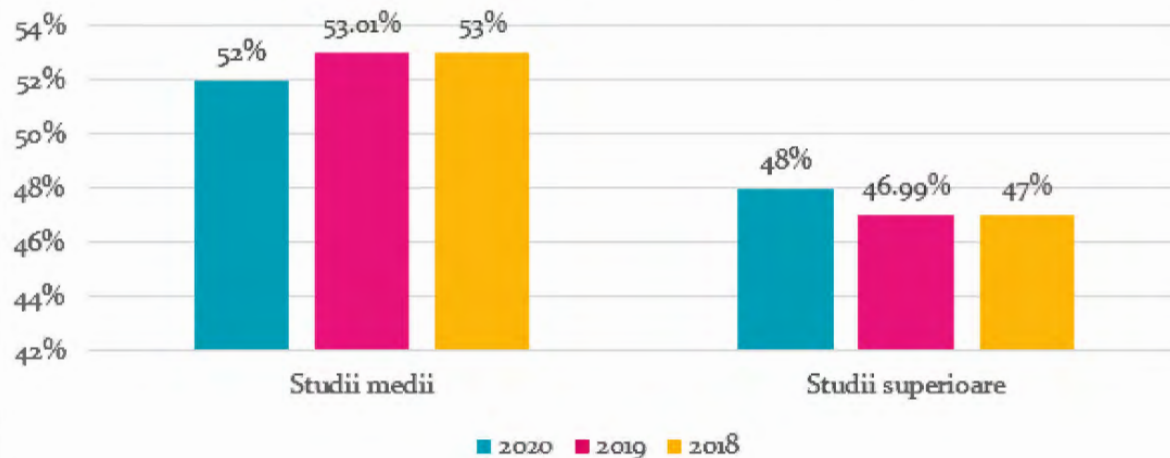


Key Performance Indicators (KPIs)

Cernavoda NPP - Structure of the personnel, by gender, in 2020, 2019 and 2018

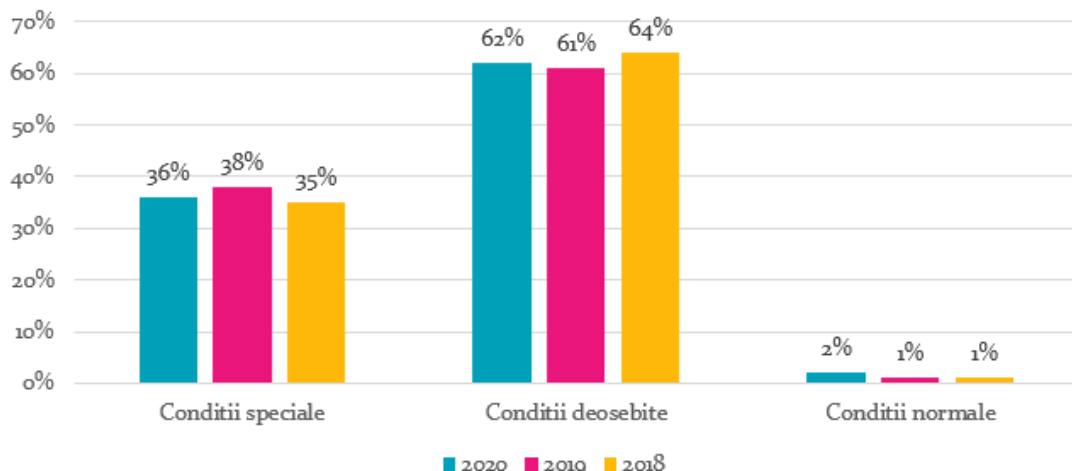


Cernavoda NPP - Structure of the personnel, per categories of studies, in 2020, 2019 and 2018

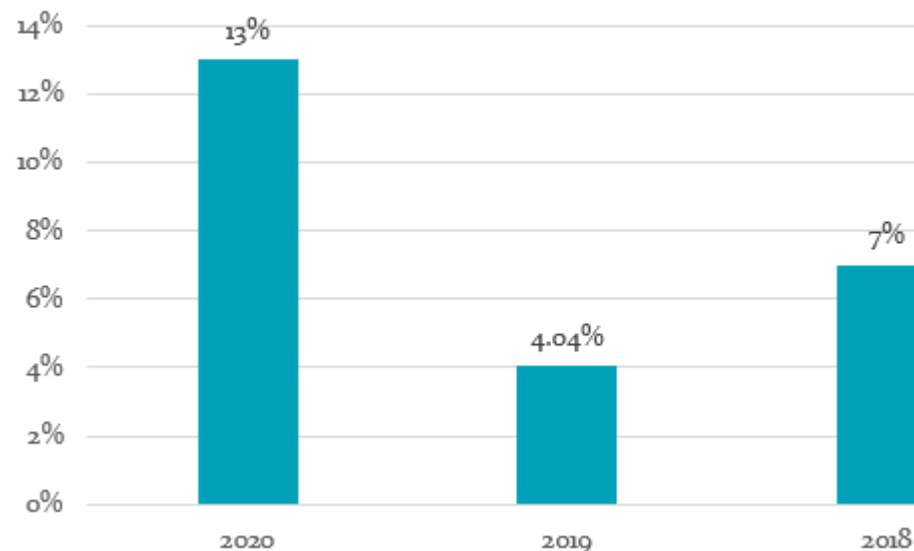


Key Performance Indicators (KPIs)

Cernavoda NPP - Employment based on working conditions, as at 31.12.2020



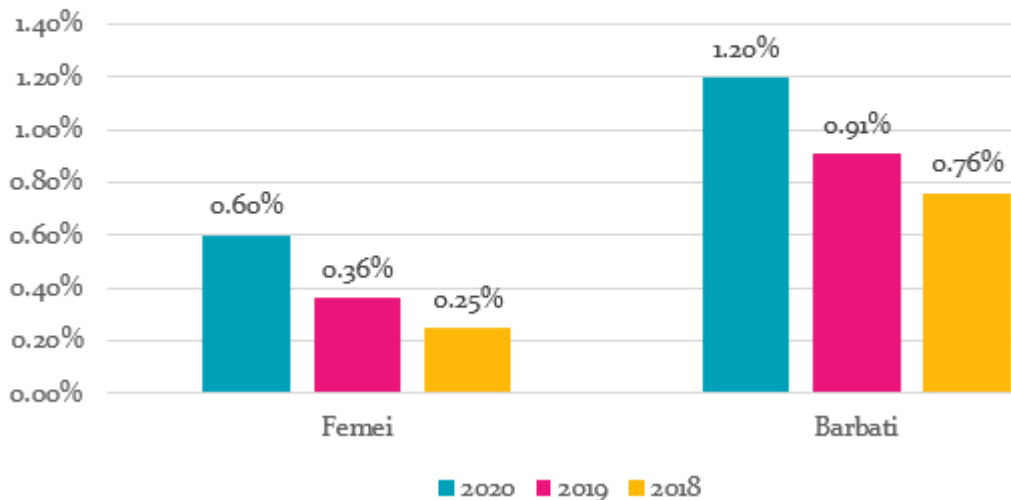
CNE Cernavoda - turnover rate, 2020, 2019 and 2018



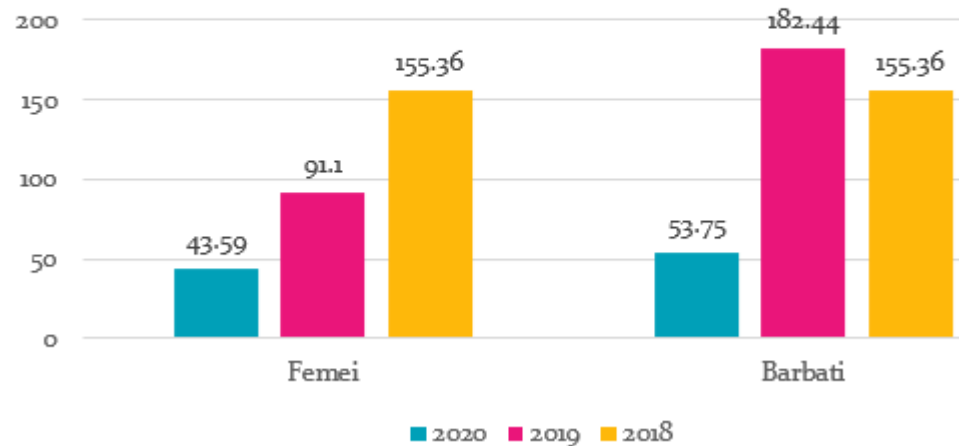
The turnover rate significantly increased at the end of 2020 (with an accelerated trend in the second part of the year) because of the uncertainty of the legislation applicable for public pensions, which caused a significant number of employees to request pensioning, thus capitalizing the periods under special or difficult work conditions.

Key Performance Indicators (KPIs)

Cernavoda NPP - Share of the number of personnel numbers with ILA with a definite term, from the total number of personnel members, in 2020, 2019 and 2018



Cernavoda NPP - Average number of training hours per year for each employee, per categories of gender, as at 31.12.2020

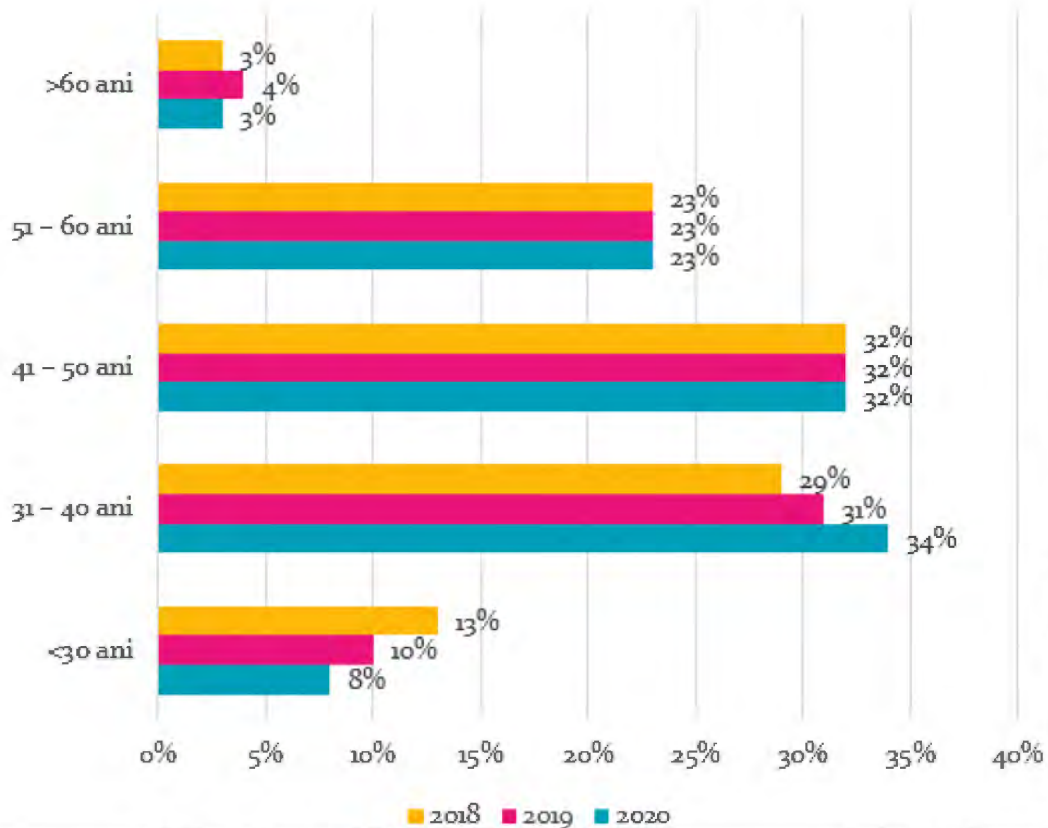


Number of people with disabilities employed 11

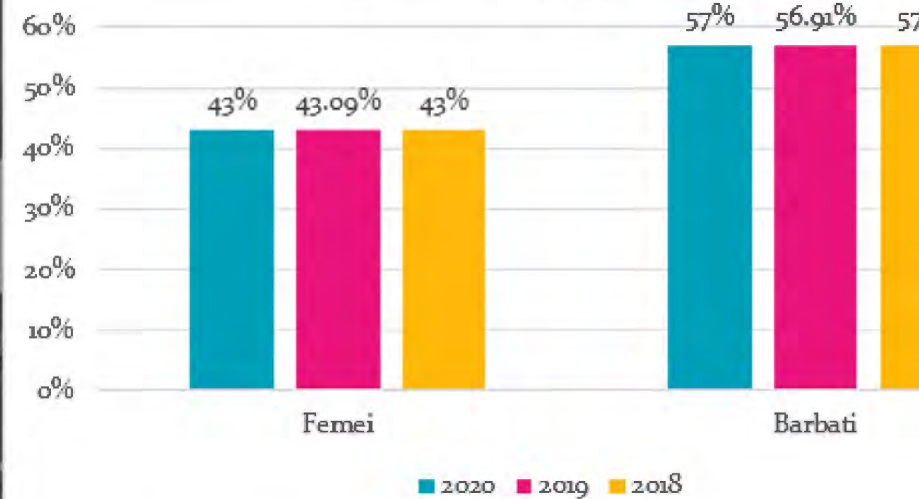


Key Performance Indicators (KPIs)

FCN Pitesti - Structure of the personnel, per categories of age, in 2020, 2019 and 2018

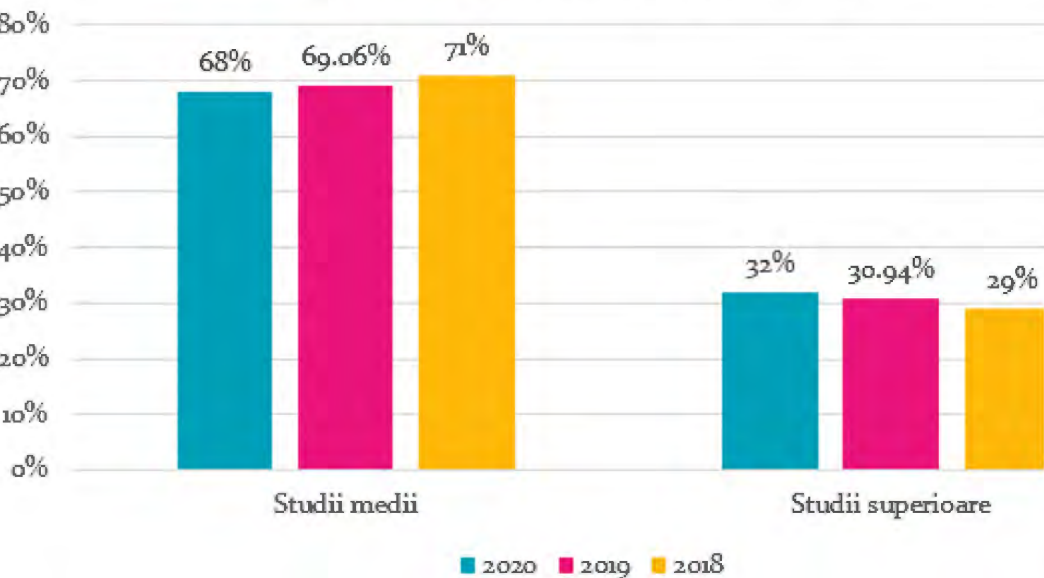


NFP Pitesti - Structure of the personnel, per genders, as at 31.12.2020

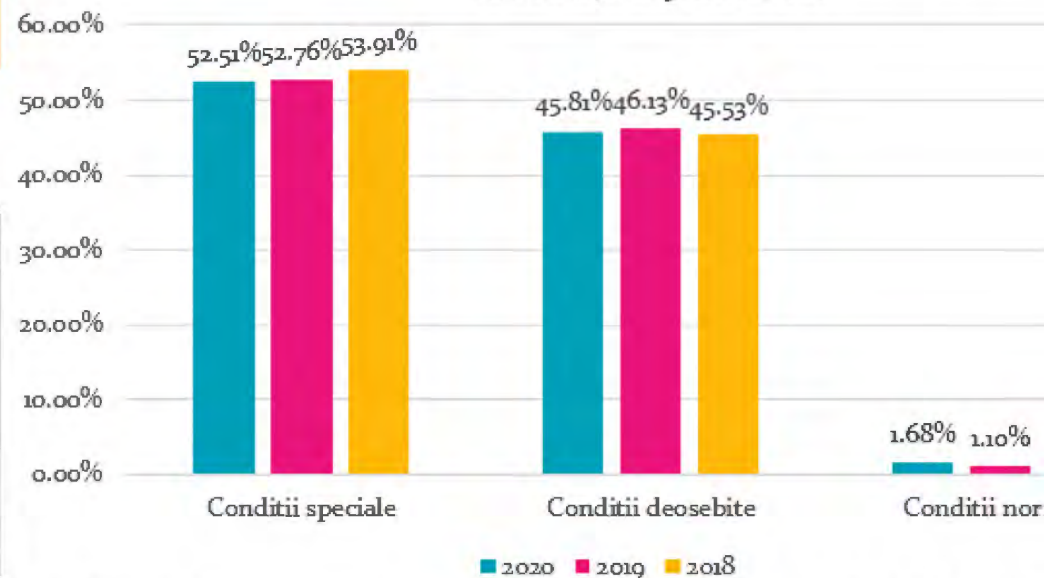


Key Performance Indicators (KPIs)

NFP Pitesti - Structure of the personnel, per categories of studies, in 2020, 2019 and 2018

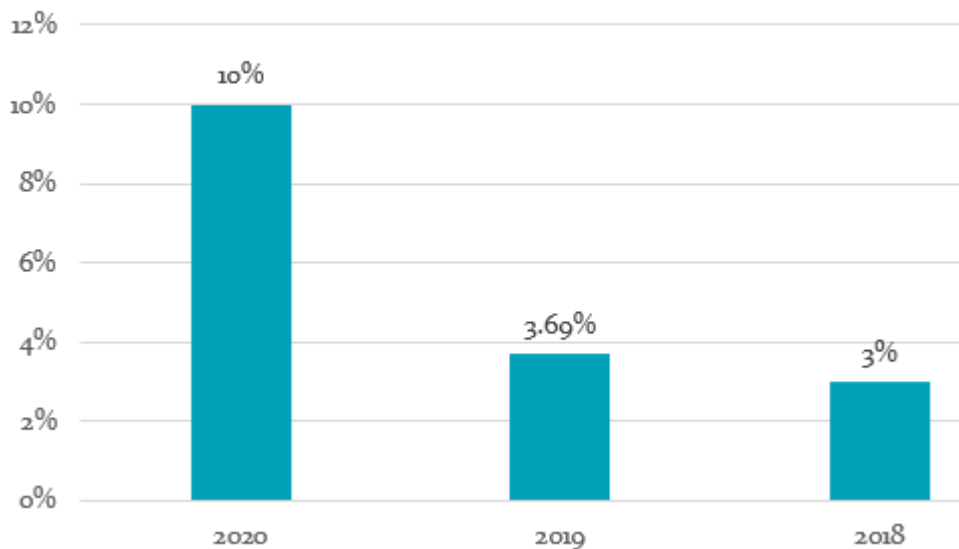


NFP Pitesti - Employment based on working conditions in 2020, 2019 and 2018

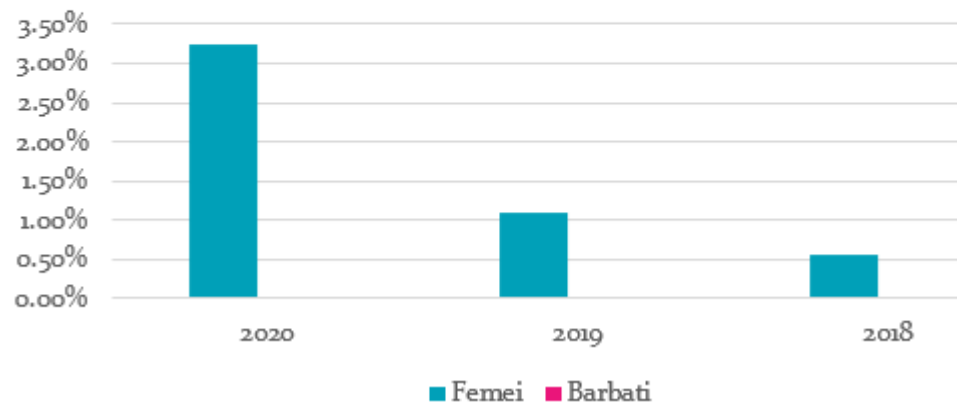


Key Performance Indicators (KPIs)

NFP Pitesti - turnover rate, 2020, 2019 and 2018



NFP Pitesti - Share of the number of personnel numbers with ILA with a definite term, from the total number of personnel members, in 2020, 2019 and 2018



The turnover rate significantly increased in the second part of 2020 because of the uncertainty of the legislation applicable for public pensions, which caused a high number of employees to request pensioning by reducing the standard pensioning age, thus capitalizing the work periods under special or difficult work conditions.

Number of work accidents, types of injuries or occupational diseases

In 2020, NFP did not record any work accidents, and did not record any occupational diseases.

NFP does not have any people with disabilities employed.



Mentorship programs

- Implementing a solid internal mentorship program is one of the management objectives and an objective of the human resource policy
- On-job mentoring is performed by coaching, shadowing and training multi-disciplinary teams
- Young graduates of specialized faculties have the opportunity of enlisting in the paid internship of SNN, and of subsequently obtaining a job within the company, based on a selection-based competitive procedure

Sanse egale

Observance of human rights



The human resources strategies and policies, the action directions of the administrative and executive management, aim for the observance of human rights in compliance with the international and national legislation. In this regard, Nuclearelectrica pays attention through its policies and strategies to: the principle of equality of rights and equality of chances, the right to life, health protection and the right to a healthy environment, the right to defense and non-discriminatory access to justice, individual freedom and the right of free circulation, freedom of expression, freedom of information, the right to elect and be elected, the right to work and the right to strike, the right to association, the protection of people with disabilities, the right to petition, the right to legislative initiatives, the protection of children and youth.

SNN recorded no cases with a major impact on human rights in relation to the current activity or the decisions adopted. The admission and settlement of any complaints, the mitigation of cases of human rights breached and the adoption of settlement measures are carried out according to the Ethics Commission Regulations.

Through SNN's CLA, the Internal Regulations of SNN SA, Procedure RD-01364-HR001 Human Resources and Organizational Development, SNN manages issues that are related to the observance of human rights, including the freedom of association.



Fight against corruption and bribery

Offering and accepting bribes are strictly forbidden by the ethics code of the Board of Directors, the Business Ethics and Code of Conduct of SN Nuclearelectrica SA, the Ethics and Compliance Program of SN Nuclearelectrica SA, available on the SNN website, in the Investor relation section, Regulations



Qualification and training courses are annually organized in the field of business ethics and compliance

In 2020, SNN obtained the ISO 37001/2016 standard for the anti-bribery management system

The internal compliance guides clearly define various types of facilitation payments and scenarios, so that there are no doubts on the expected ethical behavior

SNN continued the process of optimizing the internal procedural framework regarding the compliance, prevention and integrity warnings, and performed, in parallel, sustained activities of familiarizing the entire personnel with the principles and provisions of the related procedural framework.

Besides the online advertising and promotion of all the modifications to the procedural framework, SNN organized and implemented several training sessions, in which approximately 1600 employees participated.

The anti-bribery management system developed on the level of SNN is certified according to the requirements of the ISO 37001: 2016 standard and especially considers the following processes:

Declaring presents and other benefits

Avoiding conflicts of interests



Fight against corruption and bribery



Mandate of the ethics adviser and of the compliance officer

Protection of the integrity whistleblower

Prevention measures for managing sensitive functions

Sponsorships, donations and other charitable activities;

Employee deductions.

Fight against corruption and bribery

In order to ensure the integration of the requirements of the anti-bribery management systems in the processes of the company, the internal normative anticorruption framework was consolidated and developed by drafting operational policies, procedures and instructions, namely:

- The Anticorruption policy, designed to encourage and facilitate the activity of preventing and fighting corruption deeds, setting anticorruption principles for all employees, setting up a framework for setting, reviewing and achieving anticorruption objectives adopted by the company by joining the National Anticorruption Strategy.
- The procedure “Manner of complying with the Anticorruption policy” which regulates the field and structure of the compliance function established in order to ensure the compliance with the principles set in the Anticorruption Policy.
- The procedure regarding the “Implementation of financial and non-financial anticorruption compliance inspections” that describes the manner of implementing relevant inspections for preventing, detecting and investigating corruption risks.
- The procedure for assessing business partners from the perspective of the risks associated to the anticorruption compliance system which describes the manner in which the analysis of commercial partners is performed in order to minimize the risks generated by the transactions performed by SNN S.A.



Whistleblower protection policy

- The policy and methods of whistleblowing non-compliance practices and behaviors is notified to the employees by internal regulations, and means are provided, including for anonymous complaints (the integrity warning tool on the SNN website)
- Protecting whistleblowers is regulated in the Compliance Guide and in the Business Ethics and Code of Conduct of SN Nuclearelectrica SA.
- The SNN structure has specialized departments and structures for investigating complaints and protecting whistleblowers: the compliance officer, the ethics officer, the compliance office.
- The information received by the non-compliance whistleblowing program are not made public, in order to protect whistleblowers and the investigation, unless there is a legal process.

Ask us!

Any question or request for suggestions regarding compliance and integrity issues in our daily business, can be addressed to the Compliance desk at, conformitate@nuclearelectrica.ro


Tell us!

About any trespassing and complaints about infringement on our code or applicable laws – it is your duty! sesizari@nuclearelectrica.ro

Consolidated non-financial statement

A child is sitting on a stack of books, looking at a large globe that is part of a glowing lightbulb. The globe shows the continents of Africa and South America. The lightbulb is illuminated from within, casting a warm glow. The background is a soft, hazy landscape with a city skyline in the distance.

SNN has one branch, namely Energonuclear S.A. (“EN”), with an interest in the share capital of 100% as at December 31, 2020. It enters within the consolidation perimeter.

A city skyline with several tall skyscrapers is visible under a blue sky with white clouds. A vibrant rainbow arches across the sky above the buildings.

Consolidated non-financial statement

The establishment of EN S.A., company whose mission is the development of the execution project for the Units 3 and 4 from Cernavoda Nuclear Power Plant, was achieved by promoting a shareholding structure, where SNN holds a participation share of 51% of the share capital (according to the Government Resolution no. 643/2007, as it was amended by the Government Resolution no. 691/2008). According to the Investment Agreement, according to which the EN was founded, signed on December 25th, 2008 and approved by the Government Resolution no. 1565/2008, the shareholding initial structure is: SNN 51%, RWE, GDF Suez, ENEL and CEZ each with 9,15%, and ArcelorMittal and Iberdrola each with 6,2%.

After the withdrawal from the Project of the CEZ shareholders (as at December 30th, 2010) and RWE, GDF Suez and Iberdrola (as at February 28th, 2011), Enel (January 16th, 2014) and ArcelorMittal (January 17th, 2014), SNN acquired, by share transfer agreements, the cumulated share held by

them within EN, managing, as a result of these operations, to hold as at January 17, 2014 a share of 100% in the share capital of EN. The share capital of EN on December 31, 2020 is 146,152,998.73 lei, representing the equivalent of 35,000,000 euros. The share capital is divided into 37,105,029 ordinary nominative shares with a nominal value of 3.9389 lei per share.

The headquarters of the company EN is in Bucharest, 5-7 Vasile Lascar st., 3rd floor, offices no. 307, 315, 315A, 315B, 315C, 316, 317. The running number in the Trade Register is J40/3999/2009, and the Unique Registration Code is 25344972.

Consolidated non-financial statement

Articles of incorporation

The Articles of Incorporation of EN was amended, and the amendments were approved by Resolutions of the Extraordinary General Meeting of Shareholders, within the program for limiting the activities of EN initiated by EGMS no. 1/30.01.2015, and accommodated successive reductions of personnel and successive reductions of premises, and the last amendment was ordered by the Resolution of the Extraordinary General Meeting of Shareholders no. 2 of January 18, 2017, which decided to reduce the area of the registered office at EN, at the aforementioned address.

The articles of incorporation of EN was modified in July 2019 following the approval of the Resolution of the Ordinary General Meeting of Shareholders for revoking the former external financial auditor and for appointing a new one.

EN is managed in a one-tier management system. The Board of Directors consists of 3 directors appointed by the General Meeting of Shareholders. The Chairman of the Management Board is appointed with the unanimous consent of the shareholders, on the proposal of each shareholder, for a period of maximum 2 years.

In period 01.01.2020 - 18.12.2020 the structure of the Board of Directors was as follows:

- Anca Dobrica: Chairman;
- Ion Sarbulescu: Member;
- Liviu - George Fotache: Member.

As at December 31, 2020, the members of the Board of Directors are as follows:

- Anca Dobrica: Chairman;
- Alexandru Marciulescu: Member;
- Codrut Tudor: Member.

The decisions regarding the structure of the Board of Directors of EN in period January 01, 2020 - December 31, 2020 were taken by the following resolutions of the Ordinary General Meeting of Shareholders of EN no. 5/2019, 6/2020, 8/2020, 11/2020 and 12/2020.

Consolidated non-financial statement

The management of Energonuclear

In 2020, the executive management of EN was ensured by the following manager: Nicolae Capatina: Technical Service Manager - as at November 16, 2018 (Individual Employment Contract concluded for an indeterminate period as chief engineer at the Technical Service, dated May 7, 2012) by temporarily taking over the duties of the Chief Executive Officer according to BoD Resolutions 8/23.12.2019, 7/24.06.2020 and 8/23.09.2020.

Description of activity

In 2020, EN performed activities that targeted actions necessary for continuing the implementation of the project for Units 3 and 4 NPP Cernavoda, out of which the most important were:

- Maintenance and operation services for the temporary low-voltage installation at the location of Units 3 and 4 of the NPP.
- Services of water draining/discharge for the structures outside and inside the buildings within the protected area at the location of Units 3 and 4 of NPP Cernavoda.
- Services of removal/hygienization for the structures outside and inside the buildings within the protected area at the location of Units 3 and 4 of NPP Cernavoda.
- Providing electricity to Units 3 and 4 of NPP Cernavoda, necessary for the performance by EN and its contractors of activities of maintenance and conservation of the assets of the two units.
- Works for preserving embedded, penetrating and non-penetrating parts.
- Consulting the EN documentation under custody at NPP Cernavoda according to the protocol of 2018, concluded with NPP Cernavoda, in order to prepare the support documentations that were necessary for the aforementioned activities.
- Monitoring the state of the site and of the structures of Units 3 and 4 NPP Cernavoda and pursuing the corrective actions recommended by CNCAN.



Consolidated non-financial statement

- Participating in the annual inspection of CNCAN at the location of Units 3 and 4 of NPP Cernavoda, according to CNCAN Protocol no. 16351/29.10.2020.
- Extension by 2 more years by CNCAN of the EN authorization for the management system in the nuclear field.
- Drafting the EN Informative Report code 83-15000-IR-006, Rev. 0 on the status of the locations of Units 3 and 4 of NPP Cernavoda.
- Activities related to the loan contract granted to EN by SNN.
- Performance of all the necessary activities for the proper operation of the inspection action of the economic-financial inspection team at the General Inspection Division of the Ministry of Public Finance.
- Insurance of the technical assistance for the Negotiation Committee ("CN"), as a part of the "SNN Team" during the negotiations with the selected investor regarding the Investor Agreement and Articles of Incorporation of the new mixed company.



- Drafting information reports for the Ministry of Energy, the Ministry of Public Finance, the Board of Directors of EN, GMS of EN, etc.
- Managing the current activities of the company (administrative, financial-accounting, current contract management, human resources, legal, procurement, etc.).
- Concluding contracts / monitoring the provision of services for: external auditor; accounting; specialized assistance in the design, implementation, monitoring and improvement of the Internal Management Inspection System; supplying spare / replacement parts, consumable, fuel, etc.; communications (telephony, internet); banking services; leasing premises and furniture.

Consolidated non-financial statement



The resources of EN mainly come from the draws from the shareholder loan contract concluded by SNN with EN, and from cash contributions historically made by shareholders.

On December 31, 2020, EN had 5 employees working up to 40 hours a week.



Litigations

Regarding the litigations of EN with its employees or former employees, requesting the recovery of annual leave compensation differences for 2009-2010, representing compensations in value of 556,526 lei, which had been ordered by applying measure no. 8 from the judgment of the Court of Auditors no. 97/2011: the cancellation notification for 35 files was approved, and the judgment for settling the cancellation application for 1 file has not been received until the date of this Directors' Report.

Corporate Social Responsibility program

In 2020, SNN implemented an ample CSR program and sponsorships of approximately 10 million RON, a program which impacted almost 2 million Romanians, according to the information from the Annual report and from the CSR report 2020

The CSR and sponsorship activities are performed according to the CSR policy of SNN available on the SNN website, the provisions of sponsorship law 32/1994, GO 2/2015 and the internal procedure for granting sponsorships, the information notified to potential applicants for sponsorships on the SNN website, the CSR section, Request a sponsorship from SNN

SNN constantly consults the local community by the Community Information and Consultation Council, which represents a forum for debating and resolving the problems of the local community



Corporate Social Responsibility program



SNN constantly maps the stakeholders that impact and may be impacted by the SNN activities and updates this list, positioning itself on the market on several levels in order to respond to the preoccupations of all stakeholders: population, local community, mass-media, investors, authorities, international community.

The relations with the local community are managed by specialized department on the level of the headquarters and branches of NPP Cernavoda

Corporate Social Responsibility program



There is a formal mechanism for submitting complaints, including by the integrity warning tool, and by the forms related to the application of Law 544/2001

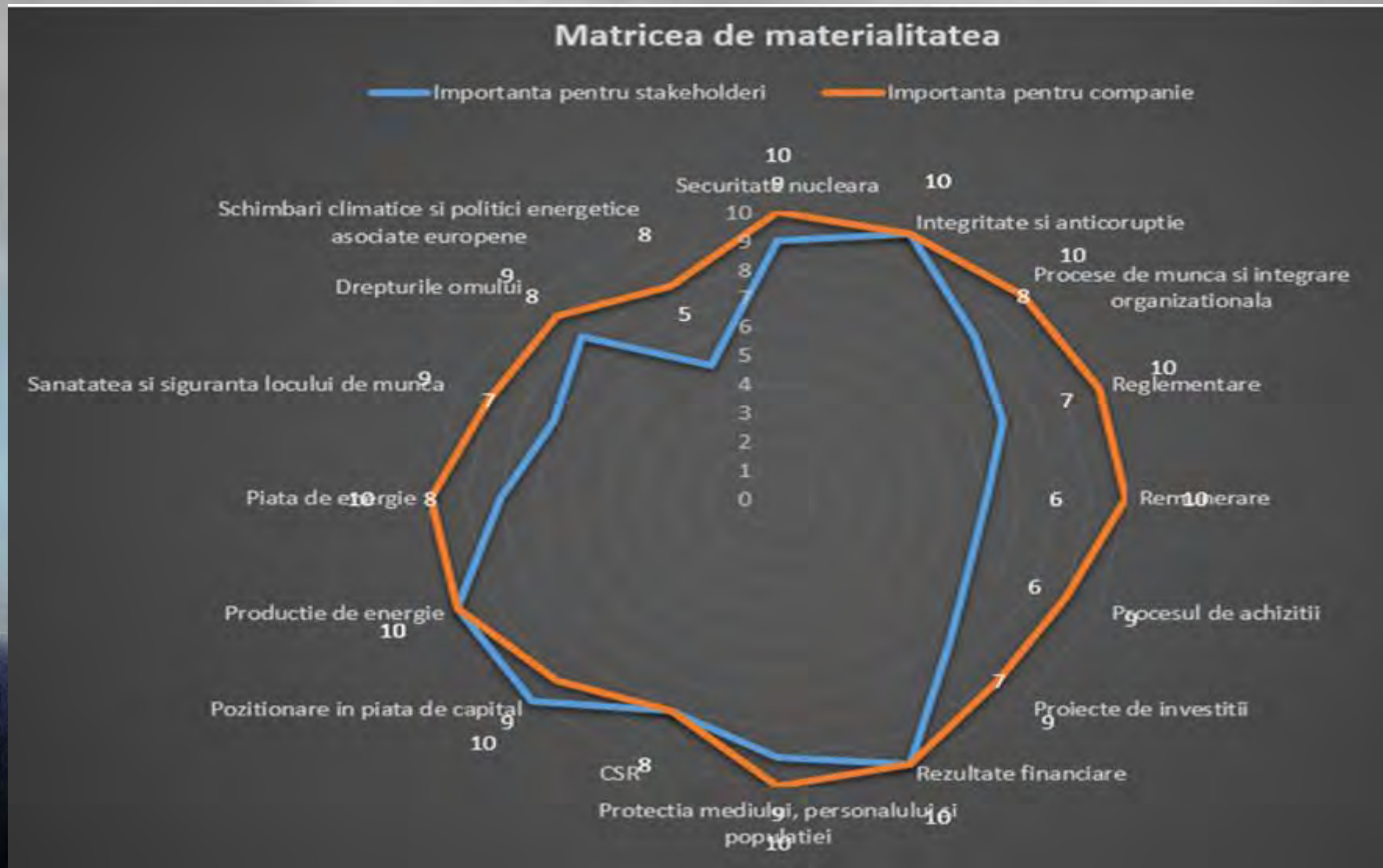
Public consultations are held for infrastructure investment projects with radiological impact, when applicable, according to the provisions transposed into the national legislation of the Aarhus and Espoo agreements. In 2020, there were no investment projects with radiological impact for which it would be necessary to hold public consultations

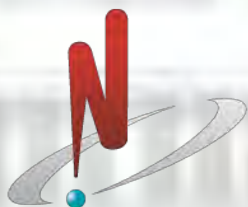


Development of relations with the local community represents one of the objectives assumed by the SNN managers by the expectation letter (<https://www.nuclearelectrica.ro/ir/wp-content/uploads/sites/9/2020/04/Scrisoare-de-asteptari-RO.pdf>)

The local community has access, on a daily basis, to information on the operation of the power station by the following contact points: a daily radio broadcast which communicates information about effluents, production, significant events, displaying on electronic panels in the city, a monthly news bulletin of NPP Cernavoda, the information centers from Cernavoda and Constanta

Materiality matrix 2020





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