S.N. Nuclearelectrica S.A.

Presentation for investors

Commitment for excellence

Action for results

SNN, IN BRIEF

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- Societatea Nationala Nuclearelectrica S.A. ("Company" or "SNN") is a national joint-stock company, managed in a one-tier management system, with its registered office in Bucharest, District 1, 65 Polona Street, and two branches without legal personality. The company's main activity is 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.
- At present, SNN is the only producer of electricity based on nuclear technology in Romania.
- Also, SNN produces nuclear fuel bundles, CANDU type, used for the operation of its own nuclear reactors.NPP branch (Nuclear - Power Plant) Cernavoda, with registered office in Cernavoda,2 Medgidiei Street, registered with the Trade Register under no. J13/3442/11.10.2007, ensures the operation of the two nuclear units, based on CANDU technology type, as well as the administration 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 had approved the change of destination since march 2014, namely, its use for carrying out activities related to the operation of Units 1 and 2, and also the heating system). The two units have a installed capacity around 700 MW (MWe 706.5 Unit 1 and MWe 704.8 MWe Unit 2).
- NFP Branch (Nuclear Fuel Plant) Pitesti, with registered office in Mioveni, 1 Campului Street, registered with the Trade Register under no. J03/457/August 24, 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 ensure 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 envisages the construction of 5 nuclear units CANDU type.

Our mission

We generate clean energy at standards of excellence

Among its characteristics:

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

Our vision

We build a sustainable future for tomorrow's generation

Our values

Professional excellence

Care for employees

Safety and stability

Empathy and responsibility

Sustainable development

Slogan

Commitment to excellence. Action for results.

Shareholding structure

The last share capital increase took place in 2020 by subscribing 130,043 new shares, in value of RON 1,300,430, representing the in-kind contribution of the Romanian State, represented by the Ministry of Economy, Energy and Business Environment, and the cash contribution of the Company shareholders. The share capital increase was performed according to the Proportional Offer Prospectus related to share capital increases, approved by Resolution of the Financial Supervision Authority no. 976/13.08.2020 and Resolutions no. 2/04.01.2019 and no. 12/19.12.2019 of the Extraordinary General Assembly of Shareholders, registered with the Trade Register National Office according to Mention Certificate no. 484154/30.09.2020.

The holders of ordinary shares are entitled to receive dividends, as they are reported from time to time, and one vote per share at the General Meetings of Shareholders.

On June 30, 2021, the shareholders of the Group are: The Romanian State, by the Ministry of Energy, holding 248,850,476 shares, representing 82.4981% of the share capital, and other shareholders, individuals and legal entities, holding together 52,793,418 shares, representing 17.5019% of the share capital.

Since November 4, 2013, the shares of the Group have been traded on Bucharest Stock Exchange, under the issuing symbol SNN.

Elements of general assesment

During the period of 6 months that ended on June 30, 2021, SNN recorded a net profit of 385,393 thousand lei.

Indicator [thousand RON]	6-month period ended on June 30, 2021 (revised)	6-month period ended on June 30, 2020 (revised)	Variation
Production (GWh)*	4,890	5,499	(11.1%)
Operating revenues, of which:	1,382,537	1,182,985	16.9%
Revenues from the sale of electricity**	1,339,580	1,157,519	15.7%
Operating expenses, less depreciation and amortization	(649,746)	(516,121)	25.9%
EBITDA	732,791	666,864	9.9%
Impairment and depreciation	(277,642)	(278,255)	(0.2%)
EBIT	455,149	388,609	17.1%
Net financial result	9,327	24,609	(62.1%)
Net income tax expense	(79,083)	(69,996)	13.0%
Net profit	385,393	343,222	12.3%

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

Operating profit (EBITDA) increased by 9.9% as compared to the same period of the previous year, mainly following the increase of operating revenues by 16.9%, influenced by the increase by 15.7% of the revenues from the sale of electricity.

Operating revenues increased by 16.9%. This increase was driven by the increase by 21.2% of the weighted average price of the electricity sold in the 1st half-year of 2021, as compared to the weighted average price from the same period of 2020, considering the sale of a total quantity of electricity that was lower by 4.6%.

Starting with 2021, ANRE no longer established delivery obligations for manufacturers on the regulated market. The contracts concluded by SNN on the regulated market for the second half of 2020 have delivery in CET hours; the last delivery time in 2020 being the first in January 2021 (361 MWh, regulated price amounting to RON 182.63/MWh (price without Tg)).

As compared to the same period of the previous year, the quantity of electricity sold on the competition market of bilateral contracts increased by 90%, given that the average sale price on this market was 8.5% lower (price without Tg). The quantity of electricity sold by SNN on the spot market (PZU and PI) in the first half-year of 2021 increased by 58%, given that the average sale price on this market that was 88% lower (price without Tg).

Operating expenses, minus impairment and amortization increased by 25.9% in the first half-year of 2021, compared to the same period of 2020. This evolution was caused by the increase of expenses with purchased electricity, repair and maintenance expenses, other operating expenses, expenses with nuclear fuel, and expenses with spare parts, partially compensated by the decrease of expenses with personnel and expenses with the transportation of electricity.

The financial result (net financial revenues) decreased by 62.1%, and negatively influenced the net result. The main currencies to which there are exposures are EUR and CAD.

The increase of net profit tax expense decreased the positive influence of the other elements. This increase was caused by the increase of the taxable profit calculated for the first half-year of 2021 compared to the one calculated for the first half-year of 2020.

Annex 1 - Financial position statement as of June 30, 2021

	June 30, 2021 (revised)	December 31, 2020 (audited)
Assets		
Non-current assets		
Tangible assets	5,659,525,233	5,794,727,840
Assets representing rights to use underlying assets under a leasing contract	538,787	621,233
Intangible assets	53,993,024	53,470,674
Financial assets valued at amortized cost	5,306,031	5,056,031
Financial investments in subsidiaries	166,666,103	141,666,101
Total non-current assets	**5,886,029,178**	**5,995,541,879**
Current assets		
Inventories	483,389,933	435,434,531
Non-current assets held for sale	2,231,633	2,231,633
Trade receivables	170,553,327	157,943,751
Other assets valued at amortized cost	119,487,175	85,367,796
Bank deposits	1,232,036,000	1,621,384,000
Cash and cash equivalents	703,277,524	546,565,840
Total current assets	**2,710,975,592**	**2,848,927,551**
Total assets	**8,597,004,770**	**8,844,469,430**
Equity and liabilities		
Equity		
Share capital, of which:	3,211,941,683	3,211,941,683
Subscribed and paid in share capital	*3,016,438,940*	*3,016,438,940*
Inflation adjustments to the share capital	*195,502,743*	*195,502,743*
Share premiums	31,474,149	31,474,149
Reserve paid in advance	21,553,537	21,553,537
Revaluation reserve	184,557,185	198,799,898
Retained earnings	3,983,453,431	4,055,915,983
Total equity	**7,432,979,985**	**7,519,685,250**
Liabilities		
Long-term liabilities		
Long-term loans	186,721,930	290,478,567
Debts from long-term leasing contracts	459,551	515,074
Provisions for risks and expenses	240,249,752	235,409,546
Deferred revenues	78,895,638	86,067,969
Deferred tax liability	65,102,448	66,526,912
Obligations concerning employee benefits	43,102,434	43,102,434
Total long-term liabilities	**614,531,753**	**722,100,502**
Current liabilities		
Trade payables and other liabilities	219,112,018	285,020,150
The current share of provisions for risks and expenses	66,254,802	57,272,874
Corporate tax due	28,583,939	32,049,397
Deferred revenues	16,767,008	16,228,454
Current share of long-term loans	218,675,808	211,995,082
Debts from short-term leasing contracts	99,457	117,721
Total current liabilities	**549,493,032**	**602,683,678**
Total liabilities	**1,164,024,785**	**1,324,784,180**
Total equities and liabilities	**8,597,004,770**	**8,844,469,430**

Annex 2 - Profit and loss account for the 6-month period ended on June 30, 2021

	3-month period ended on June 30, 2021 (not revised)	3-month period that ended on June 30, 2020 (not revised)	6-month period ended on June 30, 2021 (revised)	6-month period ended on June 30, 2020 (revised)
Income				
Income from electricity sales	656,036,231	531,983,362	1,339,580,230	1,157,519,471
Electricity transmission income	2,899,678	3,446,749	6,356,333	7,147,942
Total income	**658,935,909**	**535,430,111**	**1,345,936,563**	**1,164,667,413**
Other income	19,132,059	10,761,832	36,600,336	18,317,334
Operating expenses				
Impairment and depreciation	(140,549,621)	(140,642,675)	(277,642,431)	(278,255,370)
Personnel expenses	(98,778,441)	(105,260,062)	(193,788,929)	(218,531,117)
Cost of purchased electricity	(99,284,238)	(8,349,149)	(123,120,275)	(10,364,181)
Repairs and maintenance	(30,962,502)	(9,762,546)	(46,062,495)	(22,126,234)
Electricity transmission expenses	(2,899,678)	(3,446,749)	(6,356,333)	(7,147,942)
Cost of spare parts	(8,109,959)	(5,748,783)	(10,763,954)	(8,302,222)
Cost of nuclear fuel	(31,765,768)	(33,239,248)	(70,934,035)	(64,589,721)
Other operating expenses	(93,270,800)	(93,699,488)	(198,720,330)	(185,058,639)
Total operating expenses	**(505,621,007)**	**(400,148,700)**	**(927,388,782)**	**(794,375,426)**
Operating profit	**172,446,961**	**146,043,243**	**455,148,117**	**388,609,321**
Financial expenses	(6,774,547)	(12,995,664)	(22,483,986)	(22,579,743)
Financial revenues	16,544,063	20,736,178	31,811,462	47,188,667
Net financial revenues	**9,769,516**	**7,740,514**	**9,327,476**	**24,608,924**
Profit before income tax	**182,216,477**	**153,783,757**	**464,475,593**	**413,218,245**
Net income tax expense	(31,288,690)	(25,613,252)	(79,083,064)	(69,995,798)
Profit for the period	**150,927,787**	**128,170,505**	**385,392,529**	**343,222,447**

PROVISIONS FOR RISKS AND EXPENSES

On June 30, 2021 and December 31, 2020, respectively, the Group recognized the following provisions, included under the position "Provisions for risks and expense" and the position "Current share of provisions for risks and expenses":

	June 30, 2021 (revised)	December 31, 2020 (audited)
Obligations regarding the Intermediary Spent Fuel Storage Facility (DICA)	72,450,221	70,262,388
Obligations regarding the low and medium radioactive and non-radioactive waste	108,838,622	103,884,325
Provision for disputes related to salary bonuses	105,331,116	97,209,259
Employees' participation in the profit	19,884,595	21,326,448
Total	**306,504,554**	**292,682,420**

On June 30, 2021, the provisions in the total amount of RON 306,504,554 represent long-term and short-term liabilities, as follows:

INCOME FROM ELECTRICITY SALES

	Note	3 months that ended on June 30, 2021 (not revised)	3 months that ended on June 30, 2020 (not revised)	6 months that ended on as of June 30, 2021 (revised)	6 months that ended on June 30, 2020 (revised)
Income					
Income from electricity sales	19	656,036,231	531,983,362	1,339,580,230	1,157,519,471
Electricity transmission income		2,899,678	3,446,749	6,356,333	7,147,942
Total income		**658,935,909**	**535,430,111**	**1,345,936,563**	**1,164,667,413**
Other income	20	19,132,059	10,761,832	36,600,336	18,317,334
Operating expenses					
Impairment and depreciation		(140,549,621)	(140,642,675)	(277,642,431)	(278,255,370)
Personnel expenses	21	(98,778,441)	(105,260,062)	(193,788,929)	(218,531,117)
Cost of purchased electricity		(99,284,238)	(8,349,149)	(123,120,275)	(10,364,181)
Repairs and maintenance		(30,962,502)	(9,762,546)	(46,062,495)	(22,126,234)
Electricity transmission expenses		(2,899,678)	(3,446,749)	(6,356,333)	(7,147,942)
Cost of spare parts		(8,109,959)	(5,748,783)	(10,763,954)	(8,302,222)
Cost of nuclear fuel		(31,765,768)	(33,239,248)	(70,934,035)	(64,589,721)
Other operating expenses	22	(93,270,800)	(93,699,488)	(198,720,330)	(185,058,639)
Total operating expenses		**(505,621,007)**	**(400,148,700)**	**(927,388,782)**	**(794,375,426)**
Operating result		**172,446,961**	**146,043,243**	**455,148,117**	**388,609,321**
Financial expenses		(6,774,547)	(12,995,664)	(22,483,986)	(22,579,743)
Financial revenues		16,544,063	20,736,178	31,811,462	47,188,667
Net financial result	23	**9,769,516**	**7,740,514**	**9,327,476**	**24,608,924**
Profit before income tax		**182,216,477**	**153,783,757**	**464,475,593**	**413,218,245**
Net income tax expense	24	(31,288,690)	(25,613,252)	(79,083,064)	(69,995,798)
Profit for the period		**150,927,787**	**128,170,505**	**385,392,529**	**343,222,447**

Starting with 2021, ANRE no longer established delivery obligations for manufacturers on the regulated market. The contracts concluded on the regulated market for the second half of 2020 have delivery in CET hours; the last delivery time in 2020 being the first in January 2021 (361 MWh, regulated price amounting to RON 182.63/MWh (without T_g)).

On the free market, in the first half-year of 2021, the Company delivered 99.7% of the energy sold (first half-year of 2020: 80.1%). The average sale price of electricity sold by the Company on this market in the first half-year of 2021 was of 252.94 RON/MWh (first half-year of 2020: RON 213.51/MWh), without Tg.

Decommissioning

In accordance with Government Decision no. 1080/2007, and Radioactive Waste Nuclear Agency("ANDR") is responsible for collecting and managing the contributions made by the SNN for the dismantling of the two units and for disposal of radioactive waste generated in the operation and decommissioning of units.

In 2008 - 2019, SNN paid on an annual basis the following contributions to ANDR:

(a) Contributions for the decommissioning of each nuclear reactor in amount of 0.6 EUR/MWh of produced and delivered electricity in SEN;

(b) Contributions for the final storage of radioactive waste, in amount of 1.4 EUR/MWh of produced and delivered electricity in SEN.

Activity of SNN at BSE

Evolution of SNN shares

XII. DIVIDEND POLICY

SNN is a national company with a majority state capital. Thus, the allocation of the net profitcomplies with the provisions of Government Ordinance no. 64/2001 ("GO 64/2001") regarding theprofit distribution in national entities, national companies and companies with total or majority state capital, and autonomous administrations, as further amended and supplemented. Thus, according to the provisions of GO no. 64/2001, the minimum dividend distribution share is 50% of the net profit remained after the distributions provided under art. 1 par. (1) let. a)-e) from O.G. no. 64/2001. The legislative framework could be amended in the future by amending the legislation in force, so that the minimum dividend distribution share would be changed.

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

The due dividends and payments, respectively, during the last 3 years were as follows:

Indicator [lei]	2019*)	2018	2017
Retreated net profit) (a)**	-	-	**306,542,912**
Effect of correcting accounting errors (b)	-	-	(2,666,644)
Net profit (c) = (a) + (b)	**535,667,264**	**410,611,215**	**303,876,268**
Distribution to the legal reserve (d)	(31,563,785)	(28,631,164)	(17,845,334)
Other reserves representing tax facilities stipulated by law (e)	(5,682,083)	(3,065,741)	(7,721,372)
Net profit distributable to the dividend (f) = (c) + (d) + (e)	**498,421,396**	**378,914,310**	**278,309,562**
Employees' participation in the profit (g)	(18,700,000)	(16,000,000)	(13,265,000)
Net profit calculation base, dividend distribution (h) = (f) – (g)	**517,121,396**	**394,914,310**	**291,574,562**
Proposed dividends (i)	**498,421,396**	**378,914,310**	**271,362,466**
Allocated dividends	498,421,396	378,914,310	271,362,466
Additionally distributed dividends**)	-	-	485,437,300
Dividends paid until 31.12.2019	-	378,696,423	756,418,732
Profit distribution rate (%) = (i)/(h)	**96.38%**	**95.95%**	**93.07%**
Profit distribution rate ^2 (%) = (i)/(f)	**100.00%**	**100.00%**	**97.50%**

X. INTERNATIONAL RELATIONS

The nuclear industry is especially through the fact that inside it, there is a continuous flow of experience and information exchange. Each operator of Nuclear Plants is part of an international network of approximately 440 Nuclear Units globally. At international level, the leader in international cooperation, in the nuclear field, is the World Association of Nuclear Operators ("WANO"), and at the government level, the International Agency for atomic Energy from Vienna ("AIEA").The purpose for the development of this international cooperation network is the analysis of different eventcategories and the dissemination of lessons learned in order to eliminate recurrence, promoting experiences and optimum practices adopted and implemented internationally, benchmarking and evaluation of implementing standards at international level, control and monitoring of performance indicators and updating them to keep a constant high level of nuclear security, organizing inter-pares evaluation missions for ensuring the adherence and for each operator of Nuclear plants to adopt the best practices at international level and evaluated through de facto performance.Therefore, at the nuclear industry level, it is created what is called the "inter-pares pressure", element which determines keeping certain high security nuclear standards. In general, the international cooperation programs, mainly in the technical operating area, are divided in four distinctive categories: international evaluation missions, experience in operation, technical support and, implicitly, exchange of information and experience, continuous technical and professional development.All information categories and data resulted following the development of these programs aredisseminated to all members, within the international system.

SNN pays particular attention to safe operation of nuclear facilities which it operates, to equipment reliability, increased performance in operation, exchange of experience, with direct results on employee performance, involvement in building political support and development programs related to integrated development of the company.Therefore, according to the practice at international level, SNN is an active member in a series ofinternational organisms, with different areas at applicability, from nuclear security, radioprotection, management of radioactive waste up to procurement, financial benchmarking, international law.Depending on their specificity, these organizations can have a regulation and inspection nature for its members in order to improve their performance (e.g. World Association of Nuclear Operators - WANO) or consultative, participatory and inter-sharing of knowledge character, participation in joint projects as an effective mechanism to reduce research and purchase equipment costs.

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

- **World Association of Nuclear Operators (WANO): represents the association of all owners ofNuclear Power Plants in the world, founded in 1989. SNN has been a member of Atlanta Regional Center since 1991. In 2011 it became a member of London Coordination Centre. WANO membership guarantees: participation in assessment missions, exchange of experience in operating, technical support, technical and professional development. The WANO membership facilitates the information exchange in the field of exploitation experience of Nuclear Plants, therefore WANO members working together for reaching the highest standards in the field of Nuclear Plants exploitation under high nuclear and reliability security standards. Through WANO, all Nuclear Plant holders may communicate and exchange information between them, openly and cooperatively. This working method allow each WANO member to benefit and learn from the experience of other members, to get in line with the best practices global practices in the field, all with the final purpose of increasing the security degree in exploiting the Nuclear Plants they own.**
- **Candu Owners Group (COG): represents a private international non-profit organization, which includes organizations from Canada (AECL, Ontario Power Generation, NB Power, Bruce Power Generation, Hydro Quebec), Argentina, China, India, Korea, Pakistan and Romania. Within COG, SNN participate to the basic program Information Exchange (IE), Research and Development Program (R&D), Nuclear and Environment Safety Program (Nuclear Safety & Environmental Affairs NSEA), Joint Projects Program (Joint Projects - JP). The COG activity is generally focused on a regulation, research, maintenance, development, technical assistance and information exchange program between its members.**
- **The International Agency for Atomic Energy (AIEA): serves as inter-government world forum for the scientific and technical cooperation in the nuclear field. AIEA encourages the use of atomic energy by the signatory states, offering them the necessary technical assistance and providing them experts in the field, respectively the necessary logistic base. Romania is a founding member of AIEA.**

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

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

The European Atomic Forum (affiliation to the Romanian Atomic Forum): represents a non-profitEuropean organization with the following purposes: supporting the role of the nuclear energy an Europeanlevel by active involvement in the energetic policy of the European Union, adopting support positionsfor member states operating Nuclear Plants and involving specialists in the work groups at European level in order to centralize different points of view and measures.The results of active attendance within different international organisms is directly reflected in theperformance indicators associated to the fields: operation, radioprotection and radioactive waste management.

The nuclear industry, both at European and international level, is dedicated to contribute to overcoming the difficulties that Europe is experiencing. That is: To provide the required volume of nuclear capacity on time and at a competitive cost, in compliance with the latest estimates related to the share of nuclear energy in the energy combination with low carbon emissions. To perform research, development and innovation activities in Europe, in order to identify areas where the nuclear industry may contribute to the decarbonization of other areas, such as industry, heating and transports. To contribute to ensuring energy security: by implementing appropriate nuclear fuel policies in line with Euratom requirements, joining its forces (where relevant) to develop new leadership and partnership agreements in the EU and global distribution networks and also encouraging cooperation with energy regulators in order to further optimize the contribution of nuclear power plants to the stability of the EU's electricity grid.

To continue to set the standard for safety in the energy field, to continue to manage used nuclear fuel and radioactive waste in a responsible manner and invest in research in order to identify additional solutions for such waste. These include technologies to reduce the volume and toxicity of such residues, to reuse spent fuel or generated residues, to reduce radioactive life and ultimately to eliminate any residual waste. To invest in and maintain human capital. SNN is actively involved, by means of its specialists, at international level in everything that means information exchange, technological innovation, good practices, research and development. Hence the non-binding MOU with Nuscale for the exchange of information in the development of small modular reactors, the involvement of personnel in global organizations dedicated to nuclear energy in different working groups.

This context has also opened the way for Romania's accession to the CEM and implicitly our support for NICE Future, a global initiative to position nuclear energy as an important solution in decarbonization. We also have the same involvement within the European Atomic Forum. Recently, within the European nuclear industry, a Manifesto was signed on the role, the actual, concrete potential of nuclear energy at EU level in the medium and long term.

Another recent international cooperation from July is the conclusion of a MoU with Nordion Canada, the largest global supplier of Cobalt 60. This MoU is non-binding and intends to assess the potential of producing Cobalt 60 in the reactors from Cernavoda NPP. This isotope is produced in nuclear reactors from Cobalt 59. Currently, there are 22 reactors producing Cobalt 60 worldwide, of which 10 CANDU, in Canada, Argentina and China. The production technology of Co 60 was developed by Nordion and AECL Canada.

Exploring the possibility of producing this isotope at Cernavoda is a great step forward for the Romanian nuclear industry, in order to leverage yet another of the beneficial effects of the operation of nuclear plants, in this case for the medical system. We would like to become part of the international Co 60 community because we understand the importance for health that this isotope has. Furthermore, it represents a diversification for SNN and implicitly yet another source of income.

The decision, made following the technical studies and analyses, for the production of Cobalt 60 will in no way affect nuclear safety and production. Its collection will be done during the planned outages.

Any international cooperation comes with clear advantages for the company, different environments, energy system, employees. Islandisation and self-sufficiency are completely counterproductive.

Role of nuclear energy in the decarbonization paradigm

In Romania, today the nuclear industry provides 11,000 jobs, direct and indirect, accounting for a 590-million-EURO turnover. Continued investment in the nuclear sector, through the launchof new nuclear projects, would increase employment to 19,000, with effects in reindustrialization and economic growth in the horizontal industry, preserving highly skilled labor, stimulating research, education and engineering, giving Romania a competitive advantage in Europe.

During the SARS-COV-2 pandemic, nuclear energy was and remains a key factor in ensuring a stable, modern, resilient and cost-effective, low-carbon energy system. Nuclear energy is one of the best prepared low-carbon energy sources to help states achieve their decarbonization goals given that nuclear projects are the basis of a resilient and sustainable energy infrastructure. In addition to the challenges that all states had to face in 2020 due to the SARS-COV-2 pandemic, increasing concerns regarding climate change were maintained along with the focus on decarbonization targets and long-term energy policies that configures the role of nuclear energy, globally, regionally and nationally. During the COVID-19 crisis, nuclear power plants continued to generate electricity reliably and uninterruptedly, ensuring the continued operation of critical services essential to coping with the global health crisis and maintaining social stability. Nuclear power has been an important source of flexibility for the energy system, helping to maintain electricity security by operating in the band and complementing the supply of electricity from other sources.

Nuclear power, both through new nuclear projects and especially through the long-term operation of existing reactors, can play a key role in the post-COVID-19 economic recovery. Nuclear power projects will contribute to economic growth, while supporting, in a cost-effective manner, the development of a modern low-carbon electricity generation infrastructure. Nuclear power is able to provide large amounts of low-carbon electricity and heat, while creating a large number of high-value jobs in local and national economies. Each nuclear power project also builds a valuable infrastructure pole for research and innovation. The studies and scenarios of the International Atomic Energy Agency, the International Energy Agency of the OECD, the Massachusetts Institute of Technology, but not only, conclude that decarbonization is not possible without the contribution of nuclear energy. In order to meet the decarbonization objectives, while ensuring the increasing demand for electricity and sustainable development, it is necessary to expand the existing nuclear capacities.

There are extensive studies that show unequivocally that without nuclear energy it is extremely difficult to achieve the goals. It is estimated that without nuclear energy, the costs of transitioning to a low-carbon economy would increase by $ 1.6 trillion. Correlated with the expansion of nuclear capacities in Romania and with the development of the nuclear industry in general, the Sustainable Recovery Plan developed by the OECD through the International Energy Agency and the International Monetary Fund addresses 3 significant pillars of economic recovery: stimulating the economy, creating jobs and improving resilience and sustainability in the energy sector. This plan provides a clear role for nuclear energy, both by projects for extending the lifecycle of the existing fleet and by building a new nuclear unit, especially small modular reactors (SMR), as nuclear energy is essential in reaching post-crisis economic growth, creating 9 million jobs a year and reducing emissions by 4.5 billion tons until 2023 compared to 2019, as these are the objectives assumed for economic recovery.

In addition to energy production, the nuclear industry has other major benefits associated with other industries. One of these is the use of thermal and electrical energy for the production of hydrogen, which so far comes mainly from the gas industry. The nuclear industry can play a major role in this regard, with the need for hydrogen known in other major industries. Thus, the integrated systems with multiple effects are already in question. As an example, a single reactor with an installed capacity of 1000 MW can produce more than 200,000 tons of hydrogen per year. Globally, interest in nuclear power increased during 2020 with the Covid-19 pandemic. About 10% of the world's electricity is generated by about 440 nuclear reactors, so nuclear reactors have a key role to play in maintaining a reliable power supply, which is vital. About 50 reactors are under construction, equivalent to about 15% of the existing capacity. Nuclear power plant operators have taken a number of significant measures to protect their workforce and have implemented business continuity plans to ensure the continued operation of key aspects of their activities. There have been no forced shutdowns of any nuclear reactors due to the effects of Covid-19 on the workforce or supply chains, according to reports from operators and regulators received through the International Atomic Energy Agency's (IAEA) Covid-19 operational experience network and the International Reporting System for Operating Experience (IRS). According to the IAEA, operators and regulators have continued to ensure the stability and safety of nuclear power plants around the world, even though the pandemic has affected them in various ways, including planned shutdowns and maintenance programs. Nuclear technologies have medical applications that will help fight Covid-19. The IAEA provides diagnostic kits, equipment and training in detection techniques to countries seeking assistance in addressing the global spread of the new coronavirus. The assistance, requested by 14 countries in Africa, Asia, Latin America and the Caribbean, is part of the intensified global efforts to reduce infections. There is a clear need for new nuclear capacities all over the world, in order to replace old power stations that use fossil fuels, especially coal, and which produce significant emissions of carbon dioxide, and in order to satisfy the high demand of electricity, especially in emerging states. Currently, approximately two thirds of the electricity of the world comes from burning fossil fuels. Until 2050, if the climate change objectives are achieved, 80% or more of electricity will have to be produced with low-carbon emissions.

Extending access to energy and, at the same time, drastically reducing greenhouse gas emissions that cause global warming and climate change are among the central challenges of mankind in the 21st century. Nuclear power is a major part of the solution to produce carbon-free energy in many parts of the world, such as the United States, the European Union, Japan, South Korea, making an important contribution to reducing greenhouse gas emissions, while providing increasing quantities of electricity necessary to develop the global economy. Increased demand for electricity is particularly rapid in emerging countries, especially in Africa, where demand will increase by 100 - 450% until 2050. While today most people without access to electricity live in rural areas, most of the population growth by 2030 will take place in cities. Achieving the goal of securing access to electricity for an additional 1.3 billion people globally by 2030 will require a combination of less polluting power generation solutions. In this scenario, nuclear power will be part of the solution, due to the advantages it holds, such as stability in national systems, clean energy, baseload production. The contribution of nuclear energy to avoiding short-term CO2 emissions will be achieved by nuclear power plants in operation, under construction and in preparation. At European Union level, in order to achieve the goal of decarbonization the economy by 2050, a quarter of the EU's electricity production needs to be from nuclear sources. Regarding the prospects of nuclear energy in Central and Eastern Europe with the target of 2050, Romania supports the idea of a balanced and efficient energy mix in which nuclear power has a significant share and an important contribution to achieving the decarbonization targets and the strategic objectives assumed by Romania. SNN, through the strategies and measures it has adopted, will continue to play an essential role in ensuring the stability and security of the energy system, both through its current capabilities and in the long run, through its major investment projects. Romania acknowledges the contribution of nuclear energy, the band production source, to the decarbonization of the energy system and promotes nuclear energy as a clean primary source of energy production. On national level, by the energy strategy for 2050, the development of new nuclear capabilities is provided as an essential component of maintaining medium- and long term energy independence and ensuring the achievement of the decarbonization targets. Nuclear energy on global and European level is shaping up as a firm and reliable option for ensuring the current and future energy necessities, and is supported both by governments and the population, is a continuously evolving industry, with innovative projects and proven performance. Romania is within this European development, by the firm commitment of the nuclear program and the role of regional hub of research and innovation. For 2021, the operational priority of SNN remains nuclear security, constant production, stable financial results and development.