

S.N. NUCLEARELECTRICA S.A.  
ANNUAL REPORT  
2017

**COMPANY MANAGED IN ONE – TIER MANAGEMENT SYSTEM**



## ANNUAL REPORT 2017

### CONTENTS

1. BASIS OF THE REPORT.....	5
2. IDENTIFICATION DATA .....	5
3. MESSAGE OF THE BOARD OF DIRECTORS .....	6
4. STATEMENT OF THE CEO.....	8
5. ACTIVITY ANALYSIS .....	9
5.1. PRESENTATION OF THE COMPANY.....	10
5.1.1. MAIN ACTIVITY OF THE COMPANY .....	10
5.1.2. MISSION, VISION, VALUES, OBJECTIVES.....	11
5.1.3. DATE OF ESTABLISHMENT .....	13
5.1.4. SHAREHOLDING STRUCTURE.....	14
5.1.5. SIGNIFICANT MERGERS OR REORGANIZATIONS .....	14
5.1.6. ACQUISITION AND TRADE OF ASSETS .....	14
5.2.ELEMENTS OF GENERAL ASSESMENT .....	15
5.3. PRODUCTION AND SALE ACTIVITY .....	16
5.3.1. PRODUCTION OF ELECTRIC AND THERMAL POWER .....	16
5.3.2. THE MAIN MARKETS FOR EACH PRODUCT AND THE DISTRIBUTION METHOD.....	17
5.3.3. THE EVOLUTION OF SALES ON THE INTERNAL AND/OR EXTERNAL MARKET AND LONG AND MEDIUM – TERM PERSPECTIVES .....	22
5.3.4. THE SITUATION ON THE COMPETITIVE MARKET, THE WEIGHT OF PRODUCTS ON THE MARKET AND MAIN COMPETITORS.....	23
5.3.5. DEPENDENCY ON A SINGLE CLIENT OR GROUP OF CLIENTS .....	25
5.4.THE TECHNICAL – MATERIAL SUPPLY ACTIVITY .....	26
5.5.HUMAN RESOURCES ACTIVITY .....	30
5.5.1. NUMBER, LEVEL OF TRAINING AND THE DEGREE OF UNIONIZATION OF THE LABOR FORCE.....	31
5.5.2. RELATIONS BETWEEN MANAGERS AND EMPLOYEES .....	32
5.6. THE ACTIVITY RELATED TO ENVIRONMENTAL PROTECTION.....	33
5.7. RADIOPROTECTION PROGRAM.....	36
5.8. RESEARCH AND DEVELOPMENT ACTIVITY .....	38
5.9. OPERATING AUTHORIZATIONS AND LICENSES .....	38



## ANNUAL REPORT 2017

5.10. NUCLEAR SECURITY .....	43
5.11. INTEGRATED MANAGEMENT SYSTEM .....	45
5.12. CORPORATE SOCIAL RESPONSIBILITY .....	46
5.13. INTERNATIONAL RELATIONS.....	48
5.14. LEGAL ACTIVITY/LITIGATION .....	51
5.15. ACTIVITY RELATED TO RISK MANAGEMENT .....	52
5.16. PERSPECTIVE ELEMENTS .....	60
5.16.1. FACTORS THAT MAY INFLUENCE LIQUIDITY.....	60
5.16.2. CURRENT AND ANTICIPATED CAPITAL COSTS .....	61
5.16.3. EVENTS, TRANSACTIONS AND ECONOMIC CHANGES AFFECTING THE INCOMES .....	67
6. TANGIBLE ASSETS.....	68
6.1. LOCATION AND CHARACTERISTICS OF MAIN PRODUCTION CAPACITIES .....	68
6.2. THE DEPRECIATION DEGREE OF THE ASSETS .....	69
6.3. OPERATIONAL PERFORMANCE INDICATORS.....	69
7. MARKET OF SECURITIES ISSUED BY THE COMPANY .....	69
7.1. THE ROMANIAN MARKETS AND THE MARKETS OF OTHER COUNTRIES WHERE THE SECURITIES ISSUED BY THE COMPANY ARE TRADED .....	69
7.2. DIVIDEND POLICY .....	71
7.3. ACTIVITY OF SNN AT BSE .....	74
7.4. PRESENCE IN THE INDEXES .....	75
7.5. COMMUNICATION WITH THE SHAREHOLDERS AND INVESTORS .....	76
7.6. FURTHER INFORMATION.....	78
8. INDIVIDUAL FINANCIAL STATEMENTS AS OF 31.12.2017.....	78
9. CONSOLIDATED FINANCIAL STATEMENTS AS OF 31.12.2017.....	80
10. CORPORATE GOVERNANCE DECLARATION.....	81
10.1. IMPLEMENTATION OF THE CORPORATE GOVERNANCE PRINCIPLES .....	81
10.2. THE GENERAL MEETING OF SHAREHOLDERS .....	84
10.3. THE MANAGEMENT OF THE COMPANY.....	93
10.3.1. THE BOARD OF DIRECTORS .....	93
10.3.2. THE EXECUTIVE MANAGEMENT .....	106
10.4. CONSULTATIVE COMMITTEES.....	110



## **ANNUAL REPORT 2017**

10.5. SHAREHOLDERS RIGHTS .....	117
10.6. TRANSPARENCY, FINANCIAL REPORTING, INTERNAL CONTROL AND RISK MANAGEMENT .....	119
10.7. CONFLICT OF INTEREST AND TRANSACTIONS WITH RELATED PARTIES ...	124
10.8. INTERNAL AUDIT .....	126
11. PRESENTATION OF THE GROUP .....	127
12. SUBSEQUENT EVENTS .....	132
13. STATEMENTS AND SIGNATURES .....	133
14. APPENDIXES .....	134
APPENDIX I: ARTICLES OF INCORPORATION AMENDED IN 2017 .....	134
APPENDIX II: IMPORTANT CONTRACTS CONCLUDED BY THE COMPANY IN 2017	136
APPENDIX III: APPOINTMENT/REVOCATION DOCUMENTS IN 2017 .....	152
APPENDIX IV: LIST OF HEADQUARTERS .....	153
APPENDIX V: LIST OF BRANCHES .....	154
APPENDIX VI: LIST OF SUBSIDIARIES .....	155
APPENDIX VII: LIST OF AFFILIATED PERSONS .....	156
APPENDIX VIII: LIST OF MAJOR LITIGATIONS IN PROGRESS ON 31.12.2017 (OVER 500 THOUSAND LEI), INCLUDING THOSE THAT HAVE NOT BEEN MONETARY ASSESSED .....	157
APPENDIX IX: STAGE OF THE CORPORATE GOVERNANCE CODE IMPLEMENTATION OF BUCHAREST STOCK EXCHANGE .....	178
APPENDIX X: NOMINATION AND REMUNERATION COMMITTEE REPORT FOR 2017 208	
APPENDIX XI: AUDITED INDIVIDUAL FINANCIAL STATEMENTS AT AND FOR THE PERIOD ENDED ON 31.12.2017 PREPARED IN ACCORDANCE WITH IFRS - EU .....	224
APPENDIX XII: AUDITED CONSOLIDATED FINANCIAL STATEMENTS AT AND FOR THE PERIOD ENDED ON 31.12.2017 PREPARED IN ACCORDANCE WITH IFRS - EU .	224
APPENDIX XIII: NON-FINANCIAL STATEMENT .....	226



## ANNUAL REPORT 2017

### 1. BASIS OF THE REPORT

The Annual Report of the Administrators of S.N. Nuclearelectrica S.A. for the financial year ended at December 31, 2017 comprises the required information in compliance with:

- ❖ Chapter III of the Public Finance Minister's Order no. 2844/2016 regarding the approval of the accounting regulations compliant with the International Financial Reporting Standards.
- ❖ Art. 63 of Law no. 24/2017 regarding the issuers of financial instruments and market operations.
- ❖ Appendix no. 32 regarding the requirements for the Annual Report, of the Regulation no. 1/2006 regarding issuers and operations with real estate values, issued by the National Securities Commission.
- ❖ Art. 56 of Government Emergency Ordinance no. 109/2011 regarding corporate governance of the public institutions, as amended and supplemented.
- ❖ Art. 7 item 7.10 of the administration contracts valid on 31 December 2017, concluded between the administrators and SN Nuclearelectrica SA
- ❖ Art. 20 paragraph (2) letter e) and art. 20 paragraph (3) letter 3) from the Articles of Incorporation of SN Nuclearelectrica SA.

### 2. IDENTIFICATION DATA

Reporting date:	March 22, 2018
Issuer's name:	S.N. Nuclearelectrica S.A. ("SNN")
Social headquarters:	Bucharest, District 1, 65 Polona Street
Telephone/Fax:	+40 21 203 8200; +40 21 316 9400
Web:	<a href="http://www.nuclearelectrica.ro">www.nuclearelectrica.ro</a>
Email:	<a href="mailto:office@nuclearelectrica.ro">office@nuclearelectrica.ro</a>
Sole Registration Number	10874881
Order number in the Trade Register:	J40/7403/1998
Subscribed and paid share capital:	3,015,138,510 lei
Regulated market on which the issued securities are traded:	Bucharest Stock Exchange ( <a href="http://www.bvb.ro">www.bvb.ro</a> )
Main features of the issued securities:	Premium Category 301,513,851 shares, nominal value of 10 lei/share, dematerialized, nominative, ordinary, indivisible, with equal voting rights, freely tradable on Bucharest Stock Exchange under SNN symbol starting with 04.11.2013

### 3. MESSAGE OF THE BOARD OF DIRECTORS

2017 was characterized by evolutions in the development of nuclear, research and innovation programs, both in the EU member states as well as in Romania, in the context of long term European energy policies that establish a clear role for nuclear energy. Once again, nuclear power confirmed its role as essential player in the energy system, with an important contribution to ensuring security of supply, sustainable environment protection, economic growth and to industrial and technological development. At a national scale, 2017 marked the initiation and development of large scale nuclear projects, such as the refurbishment of Cernavoda NPP Unit 1, the largest energy project in the national energy system and the continuation of negotiations for Cernavoda NPP Units 3 and 4.

At the global level, the interest for nuclear energy remained strong, especially in the countries under development. Approximately 11% of the energy generated world wide comes from the 450 nuclear reactors in operation. Approximately 60 reactors are under construction, the equivalent of 16% of the current installed capacity, and another 150-160 reactors are planned, the equivalent of almost half of the current installed capacity. The need for new production capacities is affirmed all around the world, both in order to replace the old units using fossil fuels as well as to respond to the increase demand for electricity in several areas of the globe.

For the European economy, nuclear energy represented in 2017 a strategic sector and an essential component of the energy mix, playing a significant role in the global transition to a decarbonized energy market. Through the 128 nuclear reactors in operation in 14 of the 28 EU member states, nuclear energy ensures almost a third of the European energy production and almost 50% of the low carbon emissions energy generated in the EU, thus representing a competitive and trustworthy energy sources. At the European level, positive developments regarding nuclear energy were noticed from the European Commission who approves the financing scheme for two new units in Hungary and the extension of the life of certain reactors in Belgium.

For Romania, 2017 brought the recognition of the professionalism and the excellence in the operation of the nuclear field, by the adherence of our country to the Nuclear Energy Agency (NEA) of the Organisation for Economic Co-operation and Development (OECD). Our country became member of a worldwide prestigious community of nuclear operators and joined the efforts to continually increase the global production of nuclear energy which obliges Romania to a constant commitment to maintaining and exceeding capabilities. Thus Romania affirms its determination to have an efficient energy system to cope both with the national interest and with those of the consumers through a balanced energy mix



## ANNUAL REPORT 2017

to include all energy sources, capitalizing the competitive advantage that our country has in the region.

At present, Nuclearelectrica is the energy producer with the largest investment projects: the refurbishment of Unit 1 and the completion of Units 3 and 4, both strategic for the security of our energy system. Only through strategic investments for energy security, can the sustainable development and robustness of the energy system be achieved. The refurbishment of Cernavoda NPP Unit 1, a major investment project at half the cost of a new nuclear reactors, with the same benefits, will ensure the operation and production of nuclear power for an additional 30 years, under maximum nuclear safety conditions, beyond 2028. In this regard, in 2017, Nuclearelectrica established the Refurbishment Division, which will coordinate each phase in an efficient manner, in time and on budget. As regards to the continuation of the development of Cernavoda NPP Units 3 and 4, in 2017 the negotiations with the selected investor were restarted and continued, in order to establish the significant aspects for the completion of the investment. Both major investment projects have an essential role in the development of the company and a positive impact on the national energy system.

As regards to the perspective of the nuclear energy in Central and Eastern Europe in view of the year 2050, Romania supports the idea of a balanced and efficient energy mix, in which nuclear power has a significant contribution to the achievement of the decarbonisation targets and the strategic objectives assumed by Romania.

Nuclearelectrica, through the adopted strategies and measures, will continue to play an essential role in securing the stability of the national energy system both through the current capacity, as well as in the long term through its major investment projects. From the perspective of market orientation, the company acts in order to guarantee a stability of the sales income on the forward market, with the purpose of ensuring internal continuity and the implementation of the strategic investments.

The operational priority of Nuclearelectrica remains nuclear safety, a constant production, stable financial results and growth.

Iulian-Robert Tudorache  
President of the Board of Directors

**4. STATEMENT OF THE CEO**

2017 represented an important milestone in the history of Nuclearelectrica from the perspective of the decisions regarding the major investment projects corroborated with the solid financial results. The financial result reflects simultaneously an increase of the price of energy, with an average of 220 lei/MWh, compared to the relative low averages of the previous years, an ascending trend capitalized by SNN through its sales strategy and focus on the market segments which ensure stability and predictability for the company, without neglecting the other platforms of the OPCOM market.

During 2017, the production process of electricity and thermal power unfolded within normal parameters. Cernavoda NPP Unit 1 had a monthly capacity factor of 99,09%, with an annual average of 97,14% and delivered a net quantity of 5 485 440 MWh to the National Power System. Cernavoda NPP Unit 2 had a monthly capacity factor of 90,72% with an annual average of 89,72% (planned outage in 2017) and delivered a net quantity of 5 094 710 MWh to the National Power System. The operation activity was carried out without any adverse impact in nuclear safety, the health of the personnel, the population and the environment, within optimum nuclear safety conditions.

In 2017, the advantageous positioning of the company on the capital market also represented a priority for Nuclearelectrica, as the company registered the highest increase in the BET index.

The major investment project fully managed by SNN is the refurbishment of Unit 1, a project of high complexity from the technical, logistical and employment point of view which was approved by the General Meeting of Shareholders in September 2017 (the initiation of the first phase of the project). During 2017, SNN constantly implemented activities related to this first phase, consisting mainly of technical studies and analysis. From the organizational and logistic perspective, the Refurbishment Division was established within SNN, responsible for the implementation of the project in all its phases. Also, 2017 represented a year of continuity in the negotiation process with the selected investor, China General Nuclear Power Corporation, for the completion of the last phase of the selection procedure: the negotiation of the Investors Agreement and the Articles of Incorporation of the new project company. SNN is directly interested in obtaining a consensus and a win-win situation in order to develop a solid and advantageous project for Romania.

In addition, from the perspective of investments, most funding was directed towards the current constant improvement of the nuclear safety functions and to the strategic projects such as the Intermediate spent fuel storage facility – DICA.





## **ANNUAL REPORT 2017**

From the operationa perspective, SNN registered the same high capacity coefficient, both units in Cernavoda ranking among the best nuclear power plants in the world, Romania still occupying the top position based on its since in service capacity factor. At the same time, form the perspective of nuclear safety, established by independent evaluations, SNN has currently one of the most performant nuclear powet plants in the world. Such a high level of nuclear safety represents a guarantee of the correlated results both for the company, for its positioning on the energy and capital market, as well as for SNN's stakeholders, interested in maintaining or increasing the results of the company.

The operational results of Cernavoda NPP are supported by the exceptional quality of the nuclear fuel produced by FCN Pitesti, quality attested by the extremely low defective rate and by the professional staff.

The year 2017 also represented SNN's preparation for entering the OTC platform, a market segment with increased liquidity, thus adding a growth factor for the company through the diversification of the production on advantageous platforms.

One of SNN's challenge in the recent years is the migration of highly qualified staff to new nuclear projects in the United Arab Emirates or China, knowing the fact that expertise is a mandatory condition for the nuclear industry in order to maintain and increase the performance of the operator, thus the management of SNN focused on the human resources strategy in view of retaining the highly specialized staff as well as training a new generation of specialists through direct involvement of SNN in creating partnerships with universities.

The actions of the management focus on creating the premises for growth and coherent, integrated and pro-active management of all the processes within the company in order to ensure continuity and stability on all levels: technical and operational, production, results, support functions.

**Cosmin Ghita**  
**CEO**

## **5. ACTIVITY ANALYSIS**



## ANNUAL REPORT 2017

### **PRESENTATION OF THE COMPANY**

#### **5.1.1.MAIN ACTIVITY OF THE COMPANY**

Societatea Nationala Nuclearelectrica S.A. (the “Company” or “SNN”) is a national joint-stock company, managed in one-tier management system, having 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 electric power” – 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.

*CNE branch (Nuclear - Electric Station) Cernavoda*, registered office in Cernavoda, Medgidiei Street, No. 2, 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 an installed capacity around 700 MW (MWe 706.5 Unit 1 and MWe 704.8 MWe Unit 2).

*FCN Branch (Nuclear Fuel Plant) Pitesti*, 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.

According to the Government initial strategy, the construction of Cernavoda NPP Units 3 and 4 will be completed by Energionuclear S.A., a subsidiary of SNN, incorporated in 2009. Currently, there is a new strategy for the continuation of the Project for Units 3 and 4

## ANNUAL REPORT 2017

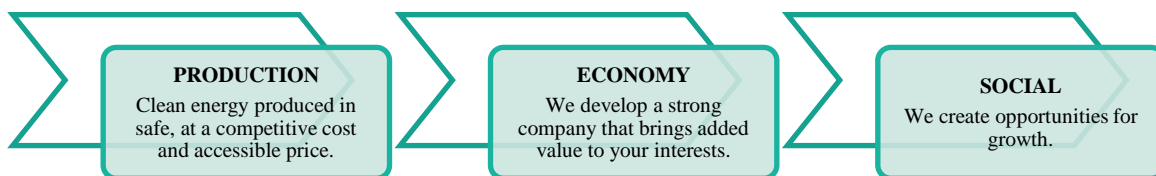
approved by the Extraordinary General Meeting of Shareholders of SNN of August 22, 2014, providing the incorporation of a new project company, into which EnergoNuclear will be absorbed. Unit 5 is currently completely depreciated, due to the fact that there is no plan for its construction; in March 2014, 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 19 kg of uranium. In order to produce the necessary fuel, FCN Pitesti operates at maximum capacity. In 2017, the FCN Pitesti branch manufactured 11,804 bundles and delivered to CNE Cernavoda 11,520 nuclear fuel bundles, according to the manufacture and delivery plan.

SNN represents a stability factor for the energy market in Romania, both through the base load electricity production and the competitive production cost. Although it is not supported and promoted by compensation schemes, an important part of the energy delivered by SNN was included in basic rates from the energy basket set by the National Regulatory Authority for Energy (“ANRE”) for 2016 and 2017, and the percentage decreased according to the ANRE strategy for liberalizing the energy market.

### 5.1.2.MISSION, VISION, VALUES, OBJECTIVES

#### *Mission*



Characteristics:



## ANNUAL REPORT 2017

- ❖ High value of the usage factor of the installed capacity; at an equal installed power, a nuclear group produces twice the quantity of power produced by a conventional group;
- ❖ Absence of greenhouse gas emissions;
- ❖ Low dependence of the power cost determined by the changes uranium price, due to its minor importance in comparison with other types of energy;
- ❖ High technical level of the operating staff, the reasonable level of generation costs;
- ❖ Nuclear energy answer integrally to the safety delivery requirements, durable development and competitively.

## *Vision*

Commitment to excellence. Action for results.

## *Objectives*

- ❖ Operation of the nuclear units in safe conditions and nuclear for the staff, population, environment and production assets;
- ❖ Conservation of the power production capacity above the present average level in industry;
- ❖ Accomplishment of the major investment objectives;
- ❖ Improvement of the indicators related to the financial performances of the company.

## *Values*



### 5.1.3.DATE OF ESTABLISHMENT

SNN was established on July 02, 1998 through Government Decision 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. The Company operates under the Romanian legislation and the Articles of Incorporation.



## ANNUAL REPORT 2017

### 5.1.4.SHAREHOLDING STRUCTURE

The shareholding structure as of 31.12.2017 is as follows:

Shareholder type	Number of shareholders	Number of shares	% Ownership of the share capital
Ministry of Energy	1	248,736,619	82.4959%
Fondul Proprietatea S.A.	1	27,408,381	9.0903%
Other legal entities (ownership under 1%), out of which:	145	16,216,051	5.3782%
- from Romania	131	14,022,879	86.4754%
- from abroad	23	2,193,172	13.5246%
Individual entities (ownership under 1%)	3,357	9,152,800	3.0356%
<b>Total</b>	<b>3,325</b>	<b>301,513,851</b>	<b>100%</b>

### 5.1.5.SIGNIFICANT MERGERS OR REORGANIZATIONS

During the 2017 financial year, no significant mergers or reorganization of SNN or its controlled companies occurred. The company is not part of a group of companies, except the group of generic companies under the common control of the Romanian State through different entities. SNN directly controls Energonuclear S.A. ("EN") subsidiary, 100% ownership as at December 31, 2017. Energonuclear branch implemented in 2017 some activity optimization programs in terms of costs, given the continuing strategy of Unit 3 and 4 Project.

### 5.1.6.ACQUISITION AND TRADE OF ASSETS

During the 2017 financial year, no acquisitions of assets occurred, except those necessary for operating and developing SNN's activity, reflected in the investment plan and the budget specifically approved. The total expenses for investments in 2017 were in value of 92.8 mil. lei.

Also, no transfer of assets occurred, except those that became obsolete as stipulated by law and the program to sell Cernavoda NPP employees' service apartments with installments payment. The total revenue from the transfer of the assets in 2017 was in amount of 90 thousand lei.

## ANNUAL REPORT 2017

### ELEMENTS OF GENERAL ASSESSMENT

The main financial indicators (based on the audited individual financial statements) and non-financial indicators are presented below:

Indicator [thousand lei]	2017 (audited)	2016 (audited, restated)	Δ % 2017 vs. 2016
Net profit	303.876	113.196	168,5%
Gross operating profit	375.326	156.921	139,2%
Turnover	1.899.936	1.648.408	15,3%
Operating expenses	1.557.574	1.523.299	2,3%
EBITDA (Operating profit + Amortization)	872.512	631.313	38,2%
Liquidity (Cash and cash equivalents + Bank deposits)	1.746.177	1.486.373	17,5%
% market share	18,1%	17,1%	5,8%

Indicator [lei]	Formula	u.m.	2017 (audited)	2016 (audited, restated)
<b>Profit indicators</b>				
EBITDA to total sales	EBITDA/Turnover	%	45,9%	38,3%
EBITDA return on equity ratio	EBITDA/Equity	%	11,7%	8,6%
Gross profit ratio	Gross profit/Turnover	%	18,8%	7,8%
Return on equity	Net profit/Equity	%	4,1%	1,5%
Return on assets	Net profit/Total assets	%	3,3%	1,2%
<b>Liquidity and solvability indicators</b>				
Current liquidity ratio	Current assets/Current liabilities	x	4,95	4,56
Quick liquidity ratio	Current assets - Inventories/Current liabilities	x	4,22	3,80
Patrimonial solvency	Equity/Total liabilities	x	4,22	3,76
<b>Risk indicators</b>				
Indebtedness	Borrowed equity/Equity	x	0,15	0,18
Interest coverage ratio	EBIT/Interest expenses	x	16,57	8,66
<b>Activity indicators</b>				
Speed ratio of debits - Customers	Adjusted average balance customers x 365/Turnover	days	26	31
Speed ratio of credits - Suppliers	Adjusted average balance suppliers VAT x 365/Turnover	days	16	22

## ANNUAL REPORT 2017

Indicator	2017	2016	% 2017 vs. 2016
Gross production [GWh]	11.509	11.286	102,0%
Net production [GWh] – Delivered in SEN	10.561	10.388	101,7%
Average capacity factor (%) – Unit 1	97,14%	83,78% <sup>*)</sup>	115,9%
Average capacity factor (%) – Unit 2	89,72% <sup>*)</sup>	99,09%	90,5%
Average personnel number	1.975	2.008	98,4%

<sup>\*)</sup> Planned outage year.

The main results of the Company activities:

Nr. Crt.	Indicator [thousand lei]	Executed 2017	Budget 2017 <sup>*)</sup>	Achieved 2016 <sup>**)</sup>	% 2017 vs. 2016	
0	1	2	3	4	5=2/3	6=2/4
1	Operating revenues	1.932.900	1.718.844	1.680.220	112,5%	115,0%
2	Operating expenses	(1.557.574)	(1.643.677)	(1.523.299)	94,8%	102,3%
3	<b>Operating profit</b>	<b>375.326</b>	<b>75.167</b>	<b>156.921</b>	<b>499,3%</b>	<b>239,2%</b>
4	Financial expenses	(94.102)	(102.818)	(118.995)	91,5%	79,1%
5	Financial revenues	75.654	97.885	89.991	77,3%	84,1%
6	<b>Net financial expenses</b>	<b>(18.448)</b>	<b>(4.933)</b>	<b>(29.004)</b>	<b>374,0%</b>	<b>63,6%</b>
7	<b>Profit before income tax</b>	<b>356.878</b>	<b>70.234</b>	<b>127.917</b>	<b>508,1%</b>	<b>279,0%</b>
8	Income tax expenses, net	(53.002)	(22.253)	(14.721)	238,2%	360,0%
9	<b>Profit for the year</b>	<b>303.876</b>	<b>47.981</b>	<b>113.196</b>	<b>633,3%</b>	<b>268,5%</b>

<sup>\*)</sup> BVC 2917 approved by OGMS Resolution no. 1/29.03.2017

<sup>\*\*)</sup> at 31 December 2017, as per the correction of an accounting error, detailed in the Audited Individual Financial Statements as at and for the period ended at 31 December 2017 (Note 3)

## 5.3.PRODUCTION AND SALE ACTIVITY

### 5.3.1. PRODUCTION OF ELECTRIC AND THERMAL POWER

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 2017 was influenced by the duration of the planned outage of Unit 2, the weather and hydrological conditions (the temperature of the cooling water from the Danube, the level of the water in the intake tank, air temperature, etc.), fuel recharges and the unplanned and planned outages of Unit 1, amounting to approximately 123.4 hours, and the unplanned outages of Unit 2, amounting to approximately 161.5 hours.



## ANNUAL REPORT 2017

The annual energy quantity that SNN can produce through its two Cernavoda NPP units is approximately 10.7 TWh (net), given the fact that the units are operated at a high capacity factor. The energy produced by SNN in 2017 had a weight of approximately 17.7% in the total energy produced in Romania (net values).

Power production in 2016 – 2017:

Output	2017			2016		
	Unit 1	Unit 2	Total	Unit 1	Unit 2	Total
Gross production (GWh)	5,986	5,523	<b>11,509</b>	5,196	6,090	<b>11,286</b>
Net production (GWh)	5,485	5,095	<b>10,580</b>	4,766	5,622	<b>10,388</b>
Capacity factor (%)	97.14	89.72	<b>93.43</b>	83.78	99.09	<b>91.44</b>

The planned and unplanned outages for each unit:

Event	Number outage days	
	2017	2016
Planned outage U1	3.7	50.46
Planned outage U2	26.48	-
<b>Subtotal planned outages</b>	<b>30.18</b>	<b>50.46</b>
Unplanned outage U1	1.45	3.47
Unplanned outage U2	6.73	-
<b>Subtotal unplanned outages</b>	<b>8.18</b>	<b>3.47</b>
<b>TOTAL</b>	<b>38.36</b>	<b>53.93</b>

The number of hours of unplanned outages was within the number estimated hours according to the 2017 production plan.

In 2017, the planned outage of Unit 2 had a duration of approximately 26.5 days, shorter than the estimated duration, of approximately 30 days.

### 5.3.2. THE MAIN MARKETS FOR EACH PRODUCT AND THE DISTRIBUTION METHOD

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



## ANNUAL REPORT 2017

The electricity was sold based on production license, as follows:

- ❖ On the regulated market through contracts concluded with last resort suppliers with view to supply energy for their consumers at regulated tariffs.
- ❖ On the competitive market through sale-purchase contracts on the markets administrated by the market operator OPCOM S.A.: mainly PCCB – LE and PCCB - NC (centralized market for bilateral contracts; the method of transaction of the extended tender contracts/transaction method according to which the contracts are distributed by continuous negotiations), PZU (the following day market) and PCSU (the centralized market for universal service).
- ❖ On the balancing market administered by Transelectrica S.A., in case of positive unbalance.
- ❖ Through negotiated sale-purchase contracts. SNN has only one such contract concluded with Transelectrica in the quality of captive consumer for the consumption of the Cernavoda 400 kV station (approximately 1.000 MWh/year).

The thermal energy produced and sold both in 2017 and 2016, through CNE Cernavoda, was delivered to the local supplier of thermal power and to several end consumers in Cernavoda and CNE site area. In Cernavoda area, SNN is the only producer that delivers thermal power in the centralized heating system.

### *Contracts on the regulated market*

During its energy production activity, the Company has concluded sale-purchase contracts with suppliers established by ANRE with a view to supply their captive consumers with the energy quantities established in compliance with the regulations issued by ANRE.

The terms of the above mentioned contracts were established in compliance with the provisions of the sale-purchase framework agreement concluded between the energy producers and the suppliers of the captive consumers, approved by ANRE Oder no. 22/2005.

The Company has the obligation to apply to the regulated contracts specific to the energy market these are concluded on, the regulated prices approved by ANRE periodically.

## ANNUAL REPORT 2017

The regulated market represents a specific category of sales because the buyers and contracted quantities are annually established by ANRE, as well as the selling price. Also, the contract clauses are strictly established by the framework agreement for the regulated market, elaborated by ANRE. The regulated contracts were concluded in 2010 for a three-year period and starting 2013 have been annually extended by addendums, with the last resort suppliers, in order to supply consumers under the regulated regime.

In 2017 the energy quantity sold on regulated contracts represented approximately 5.7% of the total sales, SNN reducing its dependency on the regulated contracts compared to 2015 when this percentage was 20.8%, and in 2016 it was 13.9%. The sales revenues on the regulated market in 2017 represented approximately 5.1% in the total revenues, while in 2016 these represented 14.6%. Starting with 2018, ANRE no longer assigns to the manufacturers quantities of energy for sales on the regulated market.

Evolution of quantities sold on the regulated market in 2014 - 2017:

Indicator	2017	2016	2015	2014
Energy sold by SNN (GWh)	10,745	10,457	10,824	10,876
Production share sold on the regulated market	5.7%	13.9%	20.8%	34.4%
Energy sold on the regulated market (nationwide) (GWh)	1,740	4,200	6,410	9,000
SNN share in total regulated market	35%	35%	35%	42%

### *Sale contracts on the competitive market administered by OPCOM*

The bilateral contracts are concluded as a result of bidding organized on the OPCOM platform, in conditions of transparency. The markets on which bids were unfolded for bilateral contracts in which SNN took part in 2017 are PCCB -LE (centralized market for bilateral contracts of electric energy – extended bidding of contract trading modality), PCCB-CN (centralized market for bilateral contracts with continuous negotiation) and PCSU (centralized market for universal service).

The average price on the centralized market of bilateral contracts registered significant fluctuations in 2017: from a maximum price of 158.06 lei/MWh in the first quarter to a minimum of 178.12 lei/MWh in the fourth quarter. The prices corresponding to each month in 2017 were influenced by the weight of the energy produced from renewable sources in the National Energy System, the impact of the energy produced from hydrological sources, and the decrease of the electricity area transportation fee (Tg) starting with July 2017 (by

## ANNUAL REPORT 2017

0.29 lei/MWh), but to a lower degree than the weighted average prices calculated for all the transactions on the wholesale market, due to the high weight of the contracts with average delivery periods in the SNN portfolio. The average price for the contracts concluded on the OPCOM markets with delivery in 2017 was 2.43% higher than the one registered in 2016.

### *Energy sale-purchase contracts on PZU (following day market) and PI (intraday market)*

The company can engage transactions on the Centralized Electric Power Market for the Next day based on the convention concluded with OPCOM. On PZU, OPCOM acts as central counterparty, being the sole buyer of the energy sold by the Company. The discounts for the transactions on PZU are concluded only with OPCOM and are done in a quick manner (2-3 days from the delivery).

PZU does not represent a primary market to SNN, the quantities sold on this market being relatively reduced, but they have increased lately considering PZU market share in total market. On PZU are traded the quantities of energy available for sale and which were not already contracted on the regulated market or bilateral contract market on the platforms administered by OPCOM.

The energy sold on the spot market (PZU and PI) by SNN represented approximately 22.2% of the total sales in 2017, compared to 28.7% in 2016, and 10.2% in 2015. The decrease of the weight was predominantly generated by the increase of the volume of electricity contracted on bilateral platforms, especially in the 2nd quarter, associated by the high production caused by a smaller number of outage hours of the CNE units. The average sale price obtained by SNN on the spot market in 2017 was higher than the one obtained by contracts, and it followed the evolution of the average prices set by the spot markets of Europe.

The average weighted annual price set on PZU was 227.69 lei/MWh, while the average annual arithmetic trading price was in 2017 of 219.95 lei/MWh, higher than the corresponding value of 2016, of 149.74 lei/MWh.

Also, SNN participated in PZU also as a buyer for the quantities that needed to be purchased especially during the unplanned outage, and also during the planned annual outage, in order to cover the contractual obligations. The purchased electricity quantities are insignificant and are within the approved budget.



## ANNUAL REPORT 2017

Generally, the prices on PZU have an increased volatility, being massively influenced by the renewable sources. As a consequence of the high prices recorded in PZU in the first quarter, starting with May there was a constant decrease in the weight of the trading on PZU, associated to an increase of the weight for term contracts, especially for PCCB-LE.

### *Convention to participate in the green certificate market*

The company has the right to take part both in the centralized green certificate market and bilateral green certificate contract market, based on the Convention of participation on the green certificate market, concluded on November 22, 2010, renewed on September 12, 2014 for an indefinite period. This Convention was concluded between the Company as participant, OPCOM as administrator of the green certificate market and Transelectrica, as transport and system operator.

The green certificates acquisition obligation depends on the volume of electricity supplied by the Company to the end consumers. Given the fact that the Company has only one supply contract concluded with the end consumers (the contract concluded by the Company with Transelectrica for approximately 1.000 MWh/year, the number of green certificates purchased by the Company is low.

### *The balancing market*

The company participates to the Balancing market and it is a Responsible Party in Balancing according to the Convention concluded on November 28, 2005 with the system and transport operator, Transelectrica S.A., whose object is to sell and purchase electricity between parties as a result of production/consumption unbalances of the Company which were compensated for by Transelectrica S.A. on the Balancing market, as per the applicable legislation.

Starting with June 24, 2016, the Company has delegated the responsibility for balancing the PRE Ciga Energy S.A., after following a competitive procedure for the award, on joining the pre broadest which have resulted in reducing net costs related to imbalances in SNN system induced by mutual compensation of individual imbalances and efficient distribution of costs and benefits among participants PRE Ciga Energy S.A

The Company sells an insignificant quantity of the balancing market, this being due to mainly due to aspects of production planning, notification of quantities, technical variations or differences not contracted on the spot market

## ANNUAL REPORT 2017

The weight of each category in the energy sales revenues and operating revenues for 2016 – 2017:

Indicator [thousand lei]	2017		2016	
	[thousand lei]	%	[thousand lei]	%
<b>Sales revenues, out of which:</b>	<b>1,897,276</b>	<b>98.16%</b>	<b>1,647,630</b>	<b>98.06%</b>
Electricity sales revenues	1,882,545	97.40%	1,618,730	98.25%
Green certificates sales revenues	18	0.00%	17	0.00%
Thermal power sales revenues	2,155	0.11%	2,022	0.12%
Electricity transport revenues	12,558	0.65%	26,861	1.63%
<b>Other operating revenues</b>	<b>35,603</b>	<b>1.84%</b>	<b>32,589</b>	<b>1.94%</b>
<b>TOTAL operating revenues</b>	<b>1,932,879</b>	<b>100%</b>	<b>1,680,219</b>	<b>100%</b>

No new products/new services for which a considerable volume of assets would be necessary are taken into consideration for the next financial year.

### 5.3.3. THE EVOLUTION OF SALES ON THE INTERNAL AND/OR EXTERNAL MARKET AND LONG AND MEDIUM – TERM PERSPECTIVES

Evolution of the sales on the main markets for the last two years, both quantitative and as value:

Indicator [lei]	2017		2016	
	GWh	Value [thousand lei]	GWh	Value [thousand lei]
<b>Electricity sales, out of which:</b>	<b>10,745</b>	<b>1,882,545</b>	<b>10,458</b>	<b>1,618,747</b>
Regulated contracts	609	96,738	1,455	236,675
Contracts on the free market	10,136	1,785,807	9,003	1,382,072
- OPCOM contracts	7,720	1,286,224	5,975	964,387
- PZU/PI	2,388	494,661	3,001	415,873
- Balancing market*)	28	4,922	27	1,812

\*) Values related to the positive unbalances on the Balancing Market, according to the conventions concluded with the system and transport operator Transelectrica S.A. and internal settlement results in PRE Ciga Energy.

The quantities of energy sold monthly, based on contracts, varied insignificantly, from one quarter to another, compared to production prognosis. Thus, smaller quantities of electricity were sold in the second quarter, when the production was reduced during the planned outage of Unit 2, between May 6, 2017 and June 1, 2017.

## ANNUAL REPORT 2017

At the same time, SNN delivers thermal energy in Cernavoda, the related revenues being insignificant in total revenues (2.15 mil. lei in 2017 and respectively 2.02 mil. lei in 2016).

Regarding the delivery obligations based on regulated contracts, according to the gradual liberation policy of the market applied SNN delivered electric power on the regulated market until the end of 2017.

### 5.3.4. THE SITUATION ON THE COMPETITIVE MARKET, THE WEIGHT OF PRODUCTS ON THE MARKET AND MAIN COMPETITORS

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

- Energy producers;
- Electricity Transport Company - Transelectrica S.A.;
- Energy distributors;
- Energy suppliers;
- Energy traders.

Supply of electricity was conducted during 2017 on two market segments: the regulated market and the competitive market.

Until the date of this Report, there is no data published by ANRE regarding the energy market in 2017, on December 31, 2017. 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 18.57%, while the value of the indicator calculated for Hidroelectrica was 24.03% and for C.E. Oltenia 23.84%.

According to the statistical centralized data by Transelectrica S.A. so far, in 2017, the SNN production represented 17.65% of the total electricity produced in Romania (net values).

The structure of the gross energy production nationwide is as follows:

Structure of the energy production	2017		2016	
	GWh	%	GWh	%
Conventional power plants	28,088	44.1%	26,568	40.2%
Hydro power plants	14,755	23.2%	19,698	29.8%
Nuclear power plants	11,509	18.1%	11,286	17.1%
Wind power plants	7,411	11.6%	6,725	10.2%

## ANNUAL REPORT 2017

Photovoltaic power plants	1,882	3%	1,844	2.8%
<b>Total</b>	<b>63,645</b>	<b>100%</b>	<b>66,121</b>	<b>100%</b>

*Source: The National Institute of Statistics – Press release no. 37/2018.*

The estimated gross energy production in Romania decreased almost 3.7% in 2017 compared to 2016, while the estimated consumption decreased with 0.4%. In 2017 the export nationwide decreased with 23.7% compared to the value of the year before, reaching a value of 6.548 GWh, representing 57% of volume consumption, which is 11.446 GWh, from a total national consumption of 54.621 GWh.

In 2017, the weight of the energy sold by SNN on the regulated market, in the total of the energy contracted on this market, was 35% (source: ANRE Report). Throughout 2017 the gradual liberalization of the energy market continued and ANRE reduced SNN's market share for the regulated market down to 5.77% of the 2017 production and established a new regulated price. Thus, in 2017, SNN had a supplementary participation on the competitive market compared to 2016, which ensured a higher profit margin compared to the previous year, as the energy price was significantly increased by the decrease of production in hydroelectric power plants, certain cases of unavailability of production units and weather factors.

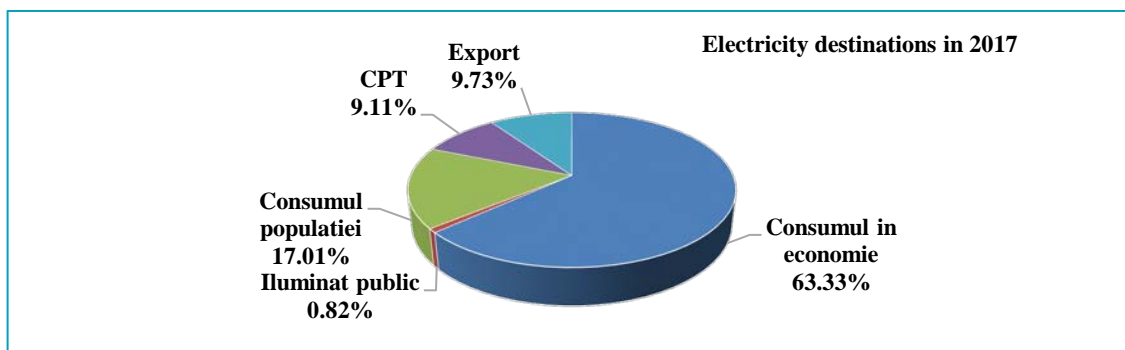
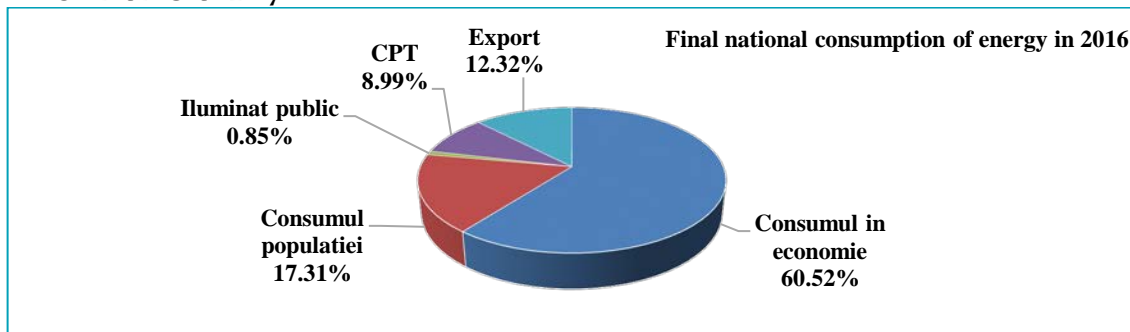
During 2017, the quantity of electricity sold by SNN was 10,745 GWh (including the quantity sold on the balancing market), while in 2016 the sold quantity was 10,457 GWh, including the balancing market.

Therefore, if in 2016, SNN sales represented nearly 19.07% of the final energy consumption needs, in 2017, SNN sales represented nearly 19.7 % of the final energy consumption of the national economy, which was 54.621 GWh (down by 0.4% in relation to 2016).

The structure of the final national consumption of energy in 2016 - 2017:



## ANNUAL REPORT 2017



**Source:** The National Institute of Statistics – Press release no. 37/2018 (CPT: technological consumption in networks and stations).

### 5.3.5. DEPENDENCY ON A SINGLE CLIENT OR GROUP OF CLIENTS

In 2017, the weight of the energy sold by SNN on the regulated market, in the total of the energy contracted on this market, was 35% (source: ANRE Report). Throughout 2017 the gradual liberalization of market continued, and ANRE lowered SNN share for the regulated market down to 5.8 % of the 2017 production and established a new regulated price.

In 2017, SNN concluded on the markets administered by OPCOM, 213 energy sale contracts with 49 buyers (there were situations when the same buyer won several bids). Out of the 49 buyers on the competitive market, only 16 bought energy quantities that exceed for each 1% of the total sales of SNN. The first three buyers, based on the volumes of energy purchased from SNN, purchased a total of 23.2 % of the sold energy; the first buyer overtook 9.8%, and the second 7.7%.

Due to the organization of the electricity market and considering the exposure to clients on the competitive market, the Company does not consider that there is a dependency on a single client or a group of clients.

## ANNUAL REPORT 2017

Based on the Convention to participate on the PZU, SNN sold in 2017 to OPCOM (which acts as central party on PZU). Sales on PZU represented 22.2 % of the total volume of energy sold by SNN in 2017. It cannot be concluded that there is a significant dependency on a single client or group of clients, the loss of which would negatively impact revenues.

### ***THE TECHNICAL – MATERIAL SUPPLY ACTIVITY***

The technical-material supply regarding materials and products necessary to unfolding the activities is achieved by both internal and import sources.

SNN has the supply sources for the unfolding in good conditions of its activity, and the inventories of raw material and materials are accordingly dimensioned to ensure the continuation of operation of the 2 Nuclear Units in Cernavoda, and for the nuclear fuel manufacturing at FCN Pitesti.

SNN, in its quality of Contracting Authority, defined according to the provisions of Emergency Ordinance no. 99/2016, regarding the awarding of procurement, has the obligation to acquire the products, services or workings necessary to unfolding its relevant activity through awarding procedures that unfold according to the provisions of the mentioned normative act, mostly open bid, competitive negotiation or simplified procedure.

In this context, throughout 2017, SNN SA initiated and unfolded 332 awarding tendering procedures for acquisition of goods, services and works, with an estimated cumulated value of 1,678,356,307 lei, equivalent of 376,415,952 euros.

In total, in 2017, on central level and in branches, 480 public procurement contracts were concluded.

The most important contracts concluded in 2017 grouped on types of contracts are presented below.

### ***Supply contracts concluded by SNN in 2017***

The technical-material supply activity is correlated to:

❖ Regarding CNE Cernavoda: the necessary products (consisting, as appropriate, equipment, spare parts, materials, consumables, etc.), resulted from the evaluation of preventing and corrective maintenance programs, in appropriate case, from the investment

## ANNUAL REPORT 2017

program for Units 1 and 2 of CNE Cernavoda, including the common objectives of the 2 Units (for example the Intermediary Warehouse for Burnt Fuel – “DICA”). Great attention is paid to purchasing critical spare parts. Critical spare parts are designed for equipment whose malfunction can lead to decreasing the redundancy of the nuclear security systems, at incidents that endanger the environment or health of the personnel, can cause operating transients or the necessity of decreasing the power, can generate major malfunctions to the important equipment of the Station.

❖ Regarding FCN Pitesti: The annual production necessities (NAF) for the implementation of the annual fuel production plan, also ensuring the reserve inventory, according to the Company Strategy. A great importance is given to the acquisition of raw materials consisting UO<sub>2</sub> powder, as well as semi-finished products made of Zircaloy 4 (tubes, round bars, sheet, wire) used for the manufacturing of the fuel.

In 2017, the Company concluded several supply contracts for raw materials, spare parts, components and equipment, among which the most important are:

❖ Contract no. 975 of September 29, 2017, for supplying 102 Vertical Flow Detectors for replacing the existing ones at Unit 2 CNE Cernavoda, in value of 1,082,556 CAD, with the mention that the purchase was made as an exception from Law no. 99/2016, in virtue of art. 36 par. (1), let. b) of the law, within a Joint Project initiated by Candu Owners Group (COG). The participation of SNN in this Joint Project was approved by the Resolution of the Board of Directors no. 37/March 22, 2017.

❖ Contract no. 1357 of December 21, 2017, with the scope of supplying (in several shipments, in a contractual period of 4 years) 1,840,000 non-welded tubes of Zircaloy 4, necessary for making nuclear fuel, in value of 15,180,000 USD, concluded with BWXT Nuclear Energy Canada, following the implementation of an open tender procedure.

❖ Contract no. 1364 of December 21, 2017, with the scope of supplying (in several shipments, in a contractual period of 4 years) 2,400 kg of rectangular wire of Zircaloy 4, necessary for making nuclear fuel, in value of 996,000 USD, concluded with Cameco Fuel Manufacturing Canada, following the implementation of an open tender procedure.

❖ Contract no. 225 din March 23, 2017, with the scope of *Replacing the control section of the excitation system type EX2000 from Unit 2 CNE Cernavoda in order to make the upgrade to the EX2100e system*, in value of 6,282,516 USD, concluded with General Electric International Inc., USA, following the implementation of a procedure of Negotiation without prior invitation to the competition tender procedure, based on the

## ANNUAL REPORT 2017

considerations exposed in Note no. 9287 of August 08, 2016, submitted to the Board of Directors in order to approve the initiation of the procurement procedure.

❖ Contract no. 505 of June 06, 2017, with the scope of *supplying 120,000 +/- 0.5% kg of natural Uranium as sinter UO<sub>2</sub> powder*, in value of 40,776,360 lei, assigned to company Cameco Inc., as an exception to the application of Law no. 99/2016 regarding sectorial acquisitions, based on art. 39, par. (1), let. b) of the law, and the competitors were the two qualified suppliers of SNN, namely Cameco and CNU.

### *Service contracts concluded by SNN in 2017*

The company concluded two subscriptions, with the Romanian Waters National Administration, as the sole operator of water resources, as follows:

❖ Subscription no. 2/2017 (RUEC SNN 1363/December 21, 2017), with the scope of *Using the cooling water from the Danube for the Power Station - Unit 1 and Unit 2 CNE Cernavoda, for 2018*, in value of 59,927,736 lei, concluded with the Romanian Waters National Administration, as an exception from the application of Law 99/2006 on sectorial procurements, in virtue of art. 38, considering the exclusive right for providing services held by the Romanian Waters National Administration, in virtue of the provisions of GEO no. 107/2002.

❖ Addendum no. 2 to subscription no. 908/2016, scope: *Reception in the resource of wastewater originating from the Nuclear Power Station - Units 1 and Unit 2, for 2018*, in value of 13,276,200 lei, concluded with the Romanian Waters National Administration – Basin Administration “Dobrogea Litoral”, as an exception from the application of Law no. 99/2006 regarding sectorial procurements, in virtue of art. 38, considering the exclusive right for providing services held by the Romanian Waters National Administration, in virtue of the provisions of GEO no. 107/2002.

The most important service contracts concluded by SNN in 2017 are:

❖ Contract no. 116 of February 16, 2017, with the scope of *drafting a Technical study regarding the Extension of the lifecycle of CNE Cernavoda Unit 1 over 210,000 EFPH (Effective Full Power Hours)*, in value of 615,280 CAD, concluded with Candu Energy Inc., Canada, following the implementation of a procedure of Negotiation without prior invitation to a competition tender procedure.

❖ The contract (Policy) of insurance services for nuclear damage civil liability, concluded

#### ANNUAL REPORT 2017

with Nuclear Risk Insurers (NRI) Limited for June 01, 2017 - May 31, 2018, in value of 927,080 USD, based on a procedure of *Negotiation without prior invitation to a competition tender procedure*, organized in virtue of the provisions of art. 117 par. (1) let. c), corroborated with par. (2) let. b) and c) of Law no. 99/2016 regarding sectorial purchases, motivated by the fact that: (i) NRI is the only national pool of nuclear insurance whose charter allows it to directly underwrite the risks associated to the nuclear installations from countries other than the country of domicile, by association (co-insurance) with the national pools that benefit from territorial exclusivity; (ii) worldwide, NRI is the largest provider of insurance capacity (and benefits from the support of the London market, including Lloyds trade unions).

❖ The contract (Policy) for property insurance services - Units 1 and 2 CNE Cernavoda and FCN Pitesti, for material damages, Physical Damage/Material Damage All Risk - MD concluded with Nuclear Risk Insurers (NRI) Limited for June 01, 2017 - May 31, 2018, in value of 1,837,419.08 USD, based on a procedure of *Negotiation without prior invitation to a competition tender procedure*, organized in virtue of the provisions of art. 117 par. (1) let. c), corroborated with par. (2) let. b) and c) of Law no. 99/2016 regarding sectorial purchases, motivated by the fact that: (i) NRI is the only national pool of nuclear insurance whose charter allows it to directly underwrite the risks associated to the nuclear installations from countries other than the country of domicile, by association (co-insurance) with the national pools that benefit from territorial exclusivity; (ii) worldwide, NRI is the largest provider of insurance capacity (and benefits from the support of the London market, including Lloyds trade unions).

❖ Contract no. 940 of September 21, 2017, with the scope of maintenance and repair services for ensuring the operation in the project parameters of 8 York refrigeration units from Units 1 and 2 CNE Cernavoda, in value of 869,133 EUR, concluded with Veolia Energie Romania, following the implementation of an open tender procedure.

❖ Contract no. 815/July 26, 2017, with the scope of Fire prevention and extinguishment and support services for limiting the consequences of other emergency situations that can occur at the location of CNE Cernavoda, in value of 7,365,415 lei, concluded with Davi Comfire SRL, following the implementation of an open tender procedure.

❖ Contract no. 1302 of December 15, 2017, with the scope of Complete maintenance and repair services at Turboagregat, steam valves and auxiliary systems, corresponding to Unit 1 CNE Cernavoda in the Planned Outage in 2018, in value of 12,570,000 USD, concluded

## ANNUAL REPORT 2017

with General Electric International SUA, following the implementation of a procedure of Negotiation without prior invitation to a competition tender procedure (technical reasons).

❖ Contract no. 1226 of December 08, 2017, with the scope of Complete operation, maintenance and repair services for the CNE Cernavoda heating system , in value of 7,859,993 lei, concluded with association Veolia Energie Romania - Veolia Apa Servicii, following the implementation of an open tender procedure.

### *Service contracts concluded by SNN in 2017*

In 2017, the Company concluded a number of contracts for the performance of works, and the most important are:

❖ Contract no. 612/June 30, 2017, with the scope of Works for extending the physical protection system corresponding to the Burnt Fuel Intermediary Warehouse (D.I.C.A.) in order to integrate module 8 for the storage of burnt fuel, in value of 187,902 Euros, concluded with Uti Grup S.A., following the implementation of a procedure of Negotiation without the prior publication of a participation announcement, in virtue of the provisions of art. 102 let. e) and h) of GEO no. 114/2011.

❖ Contract no. 799/July 24, 2017, with the scope of Works for installing stainless steel supports for storing baskets loaded with burnt fuel, in Burnt (Used) Fuel Storage Tanks from Units 1 and 2 (S1-126 and S2-126), for the purpose of extending the storage capacity of these tanks, in value of 753,280 lei, concluded with Association Nimb Consmetal SRL - Autonomous Administration of Technologies for Nuclear Energy (RATEN), Branch: Technological Engineering for Nuclear Units (CITON), following the implementation of an open tender procedure.

### **5.5.HUMAN RESOURCES ACTIVITY**

The activity performed within SNN in 2017 in the field of human resources had as main objectives:

❖ The maintenance of personnel stability and the increase of its involvement degree by means of adequate instruments of financial and non-financial motivation;

❖ The maintenance of an open and efficient dialogue between the administration and social dialogue partner - the Unions.

## ANNUAL REPORT 2017

### 5.5.1. NUMBER, LEVEL OF TRAINING AND THE DEGREE OF UNIONIZATION OF THE LABOR FORCE

Average number of employees with labor contract in 2015 – 2017:

Indicator*	2017	2016	2015
Average number of employees, out of which:	1,975	2.008	2.034
- Indefinite term	1,955	1,985	2,021
- Definite term	20	23	13

Note (\*): Average number of employees according to S1 reporting – Statistics.

Out of total number of employees of 2.034 (2016: 2.055), the structure of the personnel according to the level of qualification (studies) for the personnel with high and medium education is as follows:

Level of qualification/studies*	2017	2016	2015
Higher education	904	931	923
Secondary education	1,096	1,111	1,140
<b>Total</b>	<b>2.000</b>	<b>2,042</b>	<b>2,063</b>

Note (\*): Reporting was prepared considering the position held by the employee.

On December 31, 2017, there are 4 trade unions within SNN:

- ❖ “CNE Cernavoda” Union, representative union, as per Decision no. 60/12.10.2011 of Medgidia Court House;
- ❖ Free Union "Energetica Nucleara '90" Cernavoda (SLEN '90);
- ❖ Union “Fabricatie Combustibil Nuclear” Pitesti;
- ❖ Union “Operatom” Cernavoda.

On December 31, 2017, approximately 72.45% of the employees are union members (1,449 employees were union members out of a total number of 2,000 employees).

The occupational safety and employee health supervision monitored occupational accident and/or disease risks. All performance indicators qualified as excellent. There were no occupational accidents or diseases.



### 5.5.2. RELATIONS BETWEEN MANAGERS AND EMPLOYEES

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 rights and obligations of employees stipulated in the CCM are formulated in full compliance with human rights, the right to work in accordance with applicable law, employees benefiting from equal treatment, without discrimination, corresponding to the international standards of the nuclear industry, in conjunction with the legislation and motivational packages tailored to the macro- and micro-economic specificity in Romania.

The employees carry on their activity in accordance with the established working schedule, the job description as well as the Rules for Organization and Operation ("ROF"). The main activities, attributions, responsibilities as well as the relationships between the departments of the company are presented in the rules for the organization and operation of the company. The manner of applying legal provisions and internal normative provisions regarding work discipline are set by Internal Regulations, applicable as of February 01, 2013.

The normative act that governs the labor relationships in the company is the Labor Code - Law no. 53/2003, as amended and supplemented, under which, during 2016, between the Company's Board of Directors and its employees, represented by the CNE union (union which is representative at the unit level unit and is legal entity), a new CCM was negotiated, registered at the Ministry of Labor on November 23, 2016, and with effects in the period 01.12.2016 - 30.11.2018. Also, provisions were integrated in CCM stipulated in other normative acts that govern the work relations, such as: Law no. 62/2011 on Social Dialog – republished, as further amended and supplemented, and Law no. 319/2006 on occupational safety and health.

The company currently uses a standardized individual work agreement both for the employees hired for a determined period of time and for the employees hired on undetermined term. The standardized individual work agreement respects the provisions of the Order no. 64/2003, regarding the individual work contract.

The company evaluates its employees on a constant basis in accordance with the internal procedures, annually or periodically, at an interval of 3 - 6 months (in the case of some personnel members who are under observation).





## **ANNUAL REPORT 2017**

The internal rules of the Company, in force since February 1, 2013 contain all the provision categories provided by the Labor Code. The internal rules 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.

Within the Company, in 2017 there were no collective layoffs and no collective work related conflicts. Currently, there are no plans for personnel reduction/restructuring.

### ***5.6..THE ACTIVITY RELATED TO ENVIRONMENTAL PROTECTION***

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

#### ***CNE Cernavodă Branch***

- (i) The Environment Authorization no. 1/26.05.2008 issued by the Ministry of Environment and Sustainable Development for the operation of Cernavoda NPP Units 1 and 2, valid until 05.01.2019. The Authorization covers all the assets and activities related to the operation of Cernavoda NPP Units 1 and 2, including both the nuclear component of the plant and the classic one. The authorization was issued without a compliance program.
- (ii) The Authorization regarding the greenhouse gas emissions no. 8/01.02.2013, 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 for the fire extinguishing system fall under the legislation regarding the reduction of greenhouse gas.
- (iii) Water Management Permit no. 131/01.06.2016 issued by the National Administration "Romanian Waters" on "Water supply and sewage disposal for Units 1 and 2 of Cernavoda Nuclear Power Plant" valid until 31.05.2019.
- (iv) Water Management Permit no. 275/05.12.2016 issued by the National Administration "Romanian Waters" on "Cernavoda Spent Fuel Storage Facility (DICA)" valid until 05.12.2019. 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 Cismeiei, provided that



## ANNUAL REPORT 2017

quality indicators related to this element radioactive respect the limits set by CNCAN.

### *FCN Pitești Branch*

The Environment Agreement issued by the Ministry of Environment and Forests and approved by the Government's Decision no. 1061/2011, valid until February 28, 2015, issued with a compliance plan, the procedure of reauthorization is in progress.

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

(a) Certificate no. 56/2016 regarding the Environment Management System of SNN - CNE Cernavoda branch for the production of electrical and thermal energy, using nuclear resources as well as for connected activities, as per the provisions of the SR EN ISO 14001:2005 (ISO 14001:2004) standard, issued by IQNet and SRAC on July 19, 2016 and valid until September 15, 2018.

(b) Certificate no. 4309/2016 regarding the Environment Management System of SNN – FCN Pitesti branch for the nuclear fuel manufacturing process, in accordance with the conditions of the EN ISO 14001:2004 standard, issued by IQNet and SRAC at October 25, 2016 and valid until September 15, 2018.

The impact of the operation of the NPP on the environment is constantly monitored and reported in accordance with the requirements of the operation and environment authorizations. For both branches, the company observed during 2017 the limits for pollutants set in environmental permits.

In 01.01.2017 – 31.12.2017 on the level of SNN SA and of the branches, there were no events with impact on the environment, population and own and contracting personnel.

All the environment reports were drafted and sent until the agreed deadlines according to the provisions from authorizations, protocols and additional requests.

According to the Investors Agreement, SNN was responsible for obtaining the environmental approval for the investment “Continuation and completion of 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 when the environmental approval was issued.



## ANNUAL REPORT 2017

According to the specific environmental legislation for nuclear premises, the environmental approval was issued by Government Resolution no. 737/2013.

The total volume of solid radioactive waste, for both units of CNE Cernavoda, generated in 2017, was 46.33 m<sup>3</sup>. In total, until the present, in 1996 - 2017, the total volume of solid radioactive waste, for both units, is 856.69 m<sup>3</sup>.

The waste is stored within the protection fence of Cernavoda NPP, inside the Intermediary Storage for Solid Radioactive Waste.

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

(a) Wet storage in the used fuel pool of the unit for a period of minimum 6 years;

Dry storage for spent fuel in intermediate storage for a period of 50 years.

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

The deposit is gradually built according to DICA Strategy for long-term development. Currently, there are 8 modules MACSTOR 200 type, with 12,000 bundles/module capacity.

In 2017, were transferred to DICA a number of 5,584 fuel bundles from Unit 1 and 4,888 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 stipulated in the authorizations. As per these conditions, FCN Pitesti may release in the atmosphere a volume of radioactive gaseous effluents of maximum 10<sup>9</sup> m<sup>3</sup>/year. The volume of gaseous radioactive effluents released in the atmosphere in 2017 represented 72.7% from the authorized volume.

FCN Pitesti transferred in 2017 a volume of 350 m<sup>3</sup> liquid radioactive effluents to the Cleaning Station of the Nuclear Research Institute (SE-ICN), which represented 17.5% of the maximum authorized volume.



## **ANNUAL REPORT 2017**

It was transferred to the treatment of radioactive waste treatment station Nuclear Research Institute (STDR-ICN) a volume of 320 m<sup>3</sup> of radioactive liquid waste, which is 40% of the limit value in the environment authorization (800 m<sup>3</sup>/an).

11,925.4 kg of non-burnable radioactive solid waste (DSRN) and 3,148.8 kg of burnable radioactive solid waste (DSRI) were generated. Transfers were performed five non-burnable radioactive solid wastes (DSRN) to deposit the final disposal of low-level radioactive solid wastes from CNU, Feldioara branch, the amount of 14,561.4 kg DSRN. Also 2,287.8 kg were transferred to radioactive solid waste incinerator (DSRI) for the treatment by incineration in STDR-ICN Pitesti.

### ***5.7.RADIOPROTECTION 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.

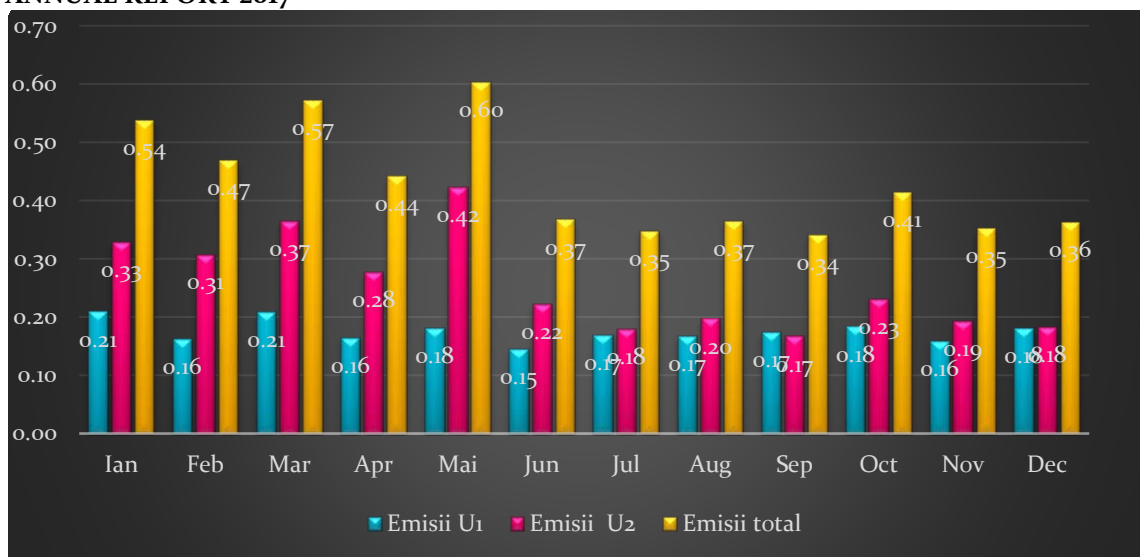
The efficiency of the Cernavoda NPP's policy regarding the ALARA principle is being monitored by determining, controlling and periodically reporting the performance indicators based on internal and external operational experience.

The radioprotection performance indicators show us the efficiency of the radioprotection programs in optimizing the personnel exposure to radiations.

The radioactive emissions into water and air were kept quite below the authorized limits for the Station. The annual average dose received by a member of the critical group, due to the radioactive emissions of Units 1 and 2 was 0.005167 mSv in 2017, while the annual average dose received by a member of the general public from the natural radiation background is of 2.4 mSv. More detailed information on the radiological impact are provided by SNN - "Environment Report".

Environment radioactive emissions U1 + U2 in 2017 (microSv)

## ANNUAL REPORT 2017



In 2017, the achieved collective dose was 507.5 mSv/worker, the annual average dose for works with recordable doses was 0.57 mSv, and the individual maximum dose was of 5.72 mSv. The legal limit for the effective dose for the professionally exposed workers is 20 mSv/year, and the administrative level at CNE is 14 mSv/year. Neither of these limits was exceeded.

At the end of 2017 the internal collective dose was of 89.57 mSv/worker, representing 17.6% of the total dose at the level of the power plant.

The Radioprotection Department issues regular reports regarding the evolution of the collective doses and of the ALARA performance indicators, thus raising the involvement of the plant's personnel in the control and optimization process for the professional exposure to ionized radiation. The achievement of these objectives is monitored through the ALARA process and the ALARA committees carry on their activity with excellent results. With an average dose per unit of 253.75 mSv/worker, Cernavoda NPP maintains its position as one of the highest performing NPPs from CANDU group.

The radioprotection program of the FCN Pitesti branch has the objective to maintain a very low exposure to ionized radiation, individual radiological monitoring and of the work environment according to the current law and requirements from the operating permits issued by CNCAN.

For the external exposure to ionized radiations, the entire personnel of FCN Pitesti is monitored using the Thermal-luminescent Dose-meters (TLDs) measured within the



## **ANNUAL REPORT 2017**

Personal Radioprotection and Dose-meter Laboratory of FCN (LRDP-FCN), assigned by CNCAN as a certified dose-meter authority with assigning certificate FCN ODD06/2017 valid for the period October 24, 2017 – October 23, 2020.

Starting January 1, 2015, FCN Pitesti reduced the Management Control Limit for the individual annual effective dose for the personnel exposed professionally from 18 mSv/year to 15 mSv/year and, with it, the monthly derived limit from 1.5 mSv/month to 1.25 mSv/month.

In 2017 the collective dose of FCN was 565,494 mSv/person, of which the collective dose following the external exposure was 499,855 mSv/person. The collective dose following internal exposure (65,639 mSv/person) represented 11.6% of the collective dose of FCN for 2017. The individual average annual dose was 1,115 mSv/year, a dose which represents 7.43% of the management control limit for an individual annual effective dose of the professionally exposed personnel requested by FCN Pitesti.

FCN Pitesti manufactured in 2017 a volume of 11,804 bundles with natural uranium dioxide. From it, 11,520 bundles were delivered to CNE Cernavoda, for the 2 units in operation, as follows: 5,760 bundles of nuclear fuel to Unit 1 and 5,760 bundles of nuclear fuel to Unit 2.

The nuclear fuel malfunction rate in 2017 was 0% for both units of CNE Cernavoda. For year 2017, the average discharging combustion degree was 168.105 MWh/kg U for Unit 1 and about 182.006 MWh/kg U for Unit 2. Thus, the high performance of the nuclear fuel was demonstrated during the operation of the two nuclear reactors.

FCN Pitesti continued to monitor the personnel and the means of transportation, with the purpose of correlate the doses, and reported the findings to CNCAN, on an annual basis and filled a report after each transport.

### ***5.8.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.

### ***5.9.OPERATING AUTHORIZATIONS AND LICENSES***

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

## ANNUAL REPORT 2017

- a) Location Authorization no. Site authorization no. I/605/30.09.1978, issued by the State Committee for nuclear energy;
- b) Authorizations in the nuclear field issued by (CNCAN);
- c) Licenses issued by (ANRE);
- d) Other authorizations.

### *(a) Site Authorization no. I/605/30.09.1978, issued by the State Committee for Nuclear Energy*

The site authorization was issued for Cernavoda site for the construction of a CANDU-PHWR 4x660 MWe nuclear power plant, made up of 4 nuclear reactors. The authorization was issued on the basis of 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.

### *(b) 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 utilization of the resources that make the object of this law, the operators must obtain specific authorizations issued by CNCAN, by respecting the specific authorization procedure for every type of activity or resource. At the end of year 2017, the following authorizations in the nuclear field were valid for SNN:

(i) Authorizations issued by CNCAN in the nuclear field for the Cernavoda NPP Subsidiary:

(a) Nuclear safety authorization for the operation and maintenance of the Nuclear Power Plant of Cernavoda, Unit 1, authorization no. SNN CNE Cernavoda U1 – 01/2013. The authorization was issued for a period of 10 years, starting with 01.05.2013 until 30.04.2023;

(b) Nuclear safety authorization for the operation and maintenance of the Nuclear Power Plant of Cernavoda, Unit 2, authorization no. SNN CNE Cernavoda U2 – 02/2013. The authorization was issued for a period of 7 years, starting with 01.05.2013 until 30.04.2020;

**ANNUAL REPORT 2017**

(c) Nuclear safety authorization for the construction of Modules 8 and 9 of the Intermediary Used Fuel Storage, authorization number SNN DICA 03/2016. The authorization is valid until February 08, 2021;

(d) Nuclear safety authorization for the operation and maintenance of modules 1, 2, 3, 4, 5, 6, 7 and 8 of the Intermediary Used Fuel Storage, authorization no. SNN DICA 03/2017. The authorization was issued for a period of 5 years, starting with 13.07.2015 until 12.07.2020;

(e) 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 – 01/2017 is issued for a period of 2 years, starting with 01.05.2017 until 30.04.2019.

(ii) Authorizations issued by CNCAN in the nuclear field for the FCN Pitesti branch:

(a) The authorization for the Quality Management System in the nuclear field no. 16-041 issued in virtue of Art. 24 of Law no. 111/1996, for production activities in the nuclear field, for 2 years, from September 18, 2016 to September 17, 2018;

(b) 9 authorizations for activities in the nuclear field:

- i. Authorization DN/175/2017 for possession of ionized radiation sources, radiologic devices with ionized radiations, devices generating ionized radiations, nuclear devices for processing and producing nuclear fuel, raw nuclear material, nuclear fuel, radioactive waste, materials with nuclear purpose, equipment and devices provided by Government Decision no. 916/2002, valid starting from 01.09.2017 until 30.01.2018;
- ii. Authorization DN/176/2017 for the use of sealed ionized radiation sources, ionizing radiological installations, equipment and devices, valid starting from 01.09.2017 until 30.01.2018;
- iii. Authorization DN/177/2017 for the manipulation of sealed radiation sources, radiological installations with sealed sources and radioactive waste, valid starting with 01.09.2017 until 30.01.2018;
- iv. Authorization DN/178/2017 for the processing of raw nuclear materials, valid starting with 01.09.2017 until 30.01.2018;
- v. Authorization DN/179/2017 for the production of nuclear fuel valid, starting with 04.09.2017 until 30.01.2018;
- vi. Authorization DN/180/2017 for the temporary storage of nuclear raw material, nuclear fuel and radioactive waste, valid starting with 07.09.2017 until 30.01.2018;



## ANNUAL REPORT 2017

- vii. Authorization DN/10/2016 for the supply of nuclear raw materials, nuclear fuel, radioactive waste, materials of nuclear interest and materials with double use, valid starting with 07.09.2017 until 30.01.2018;
- viii. Authorization DN/181/2017 for the transportation of radioactive materials, valid starting with 10.09.2014 until 09.01.2019;
- ix. Authorization AN/287/2016 for ownership of unpublished information, valid starting with 29.11.2016 until 28.11.2021.

(c) By Assignment Certificate no. FCN ODD06/2017, CNCAN updated the appointment of the radioprotection laboratory and dosimeter personnel within FCN Pitesti as Certified Dosimetry Body.

(iii) Authorizations in the nuclear field for the main office:

(a) Authorization for the quality management system for management activities in the nuclear field. Authorization no. SNN EX-01/2017 was issued for a period of 2 years, starting with 01.05.2017 until 30.04.2019;

(b) Authorization no. PD/222/2013 for ownership of heavy water for Units 3 and 4, valid from 18.10.2013 until 17.10.2018.

(iv) CNCAN authorized personnel. For Cernavoda NPP branch, the company holds 16 CNCAN permits for management personnel, 7 CNCAN permits for personnel with specific training positions and 54 CNCAN permits for operational staff in the control rooms of the two units. For the FCN Pitesti branch, the company holds 14 permits for nuclear activities of level 2.

### *(c) 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 on the basis of certain licenses issued by ANRE in this respect.

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

- a) License no. 5/03.12.1999 for the production of electric power granted through ANRE Decision no. 80/03.12.1999;



#### ANNUAL REPORT 2017

b) License no. 244/26.03.2001 for the production of thermal power granted by ANRE through the Decision no. 341/26.03.2001;

c) License no. 962/21.10.2010 for the supply of electric power granted by ANRE through the Decision no. 2597/21.10.2010.

Both in previous years and in 2017, the company complied with the provisions of the conditions associated to the aforementioned licenses.

License no. 5/03.12.1999 authorizes the company to produce electric power through the commercial operation of the power capacities related to the electric power production units. The license came into force on 03.12.1999 and is valid for 25 years. Through the resolution of ANRE no. 1683/01.11.2007, the license was modified 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 Cernavoda NPP Unit 2.

License no. 244/26.03.2001 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 26.03.2001 and is valid for 25 years. Through the resolution of ANRE no. 1684/01.11.2007, the license was modified to approve the existing conditions related to the license. SNN delivers thermal power to the local heat distribution company – Public Utilities SA Cernavoda, as well as to some end consumers in Cernavoda town – businesses, social and cultural institutions.

License no. 962/21.10.2010 for the supply of electric power authorizes the company to supply electricity on the energy retail market and come into force on 26.10.2010. By the ANRE Decision no. 2000/23.09.2015, the license was modified for the extension of the validity of the license till 21.10.2020.

#### *(d) Other authorizations*

a) ISCIR regulatory documents;

b) Statements to the National Anti-Drugs Agency;



#### ANNUAL REPORT 2017

c) Licenses issued by ANCOM. Cernavoda NPP obtained 3 licenses for the use of electrical radio frequencies from the National Communications Regulating Authority (ANCOM);

d) Fire safety authorizations;

e) Sanitary authorizations.

For environmental protection, the authorizations and certificates were distinctly presented in the report.

#### ***5.10.NUCLEAR SECURITY***

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 ensures performance warranties for all the significant activities regarding nuclear safety, in all the phases of installation and operation of nuclear facilities. This document confirms the fact that nuclear safety has the maximum priority.

The high level of nuclear safety is ensured by the design, construction and operation of the nuclear installations. The risk generated by the nuclear fuel in the reactors is minim for the population and the environment, due to the fact that:

- (i) The power of the reactor is under control;
- (ii) The fuel is cooled;
- (iii) The radiation is contained, all these taking place on a continuous base.

Up to present, no CANDU type NPP recorded events or accidents that pose a threat to the health and security of the population. Among such measures, we mention the emergency preparedness, required by the national law as a pre-requisite for licensing the operation of a nuclear power plant. Within the Cernavoda NPP, the emergency preparedness is verified and improved through quarterly, annual or general drills and exercises (once every three-four years).

## ANNUAL REPORT 2017

After the Fukushima accident, the European Commission and the Group of European Regulators of the SNN decided that the nuclear security of nuclear plants in Europe shall be reviewed based on transparent and extended risk evaluations, called „Stress tests”. The technical purpose of these stress tests was defined considering the risks pointed out by the events occurred at Fukushima. The following issues 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.

CNE Cernavoda, together with AECL Canada and ANSALDO Italia, issued „The reevaluation report of nuclear security limits”. The evaluation performed proves the fact that Units 1 and 2 from CNE Cernavoda 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. Also, methods for preventing and limiting the consequences of accidents which may determine the melting of the active area were identified.

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

### *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 - 2017, 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.



## **ANNUAL REPORT 2017**

### **5.11. INTEGRATED MANAGEMENT SYSTEM**

SNN has developed and maintains an Overall Quality Management System that complies with the provisions in force of Law no. 111/1996 and with the applicable Quality Management Requirements in the nuclear field issued by the National Commission for Nuclear Activities Control (CNCAN) and AIEA GS-R-3. The 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; current authorization no. SNN EX - 01/2017 was renewed in 2017 and is valid until 30.04.2019.

The Quality Management System, described in the Manual of Quality Management System, identifies the directions of developing and implementing the management system within SNN Executive and its branches: the Cernavoda NPP and the Nuclear Fuel Plant - Pitesti. The development and evaluation of the Management System (MS) is coordinated by the Department for the Development and Evaluation of the Management Systems (DDESM).

The branches Cernavoda NPP and FCN Pitesti have developed and maintain management systems specific to their activities.

Branch CNE Cernavoda has developed and implemented an Integrated Management System according to the provisions of Law 111/1996, the Norms for Quality Management Systems applicable in the nuclear field issued by CNCAN, Standard AIEA GS-R-3 and International Standards ISO 14001 – Requirements for the Environment Management System, OHSAS 18001 – Requirements for the Occupational Health and Safety System and ISO/CEI 27001:2005 – Requirements for the information security management system. The legal and regulation requirements issued by CNCAN and those from the International Standards, voluntarily applied, are included in the documents of the Integrated Management System of CNE Cernavoda.

The quality management system of CNE Cernavoda 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; current authorization no. SNN CNE Cernavoda – 01/2017 was renewed in 2017 and is valid until 30.04.2019.

The compliance with the requirements of International Standards ISO 14001 and OHSAS 18001 was recertified by the certification body SRAC in 2016 (validity until 15.09.2018 for the certificate of compliance with ISO 14001:2004 and 25.04.2019 for the certificate of compliance with OHSAS 18001:2007).

## ANNUAL REPORT 2017

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. 16-041/2016 (valid until 17.09.2018). Component Environmental Management System developed according to the requirements of ISO 14001:2004 has been recertified by SRAC 2013 (valid until 15.09.2018). Component Management System Occupational Health and Safety (OHSMS), developed according to OHSAS 18001: 2007 was certified by SRAC 2016 (valid until 05.11.2019 provided annual endorsement).

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 FCN Integrated Management System decisively contributed to the nuclear fuel quality proved by a very good combustion degree and zero failure rate.

### ***5.12.CORPORATE SOCIAL RESPONSIBILITY***

Social responsibility is the management process, part of the business strategy of the Company, whereby SNN wants to contribute to the building of a sustainable and performing Romanian society. SNN essential role that it has in the Romanian energy field is naturally completed by the company's desire to support the real needs of all those who permanently contribute to the smooth running of its activities.

The social programs developed by SNN were focused, ever since 1991, on the local development and improvement of living conditions for the inhabitants of Cernavoda. Further on, the corporate social responsibility activities of SNN were diversified and extended towards all areas of the country and towards different population groups.

SNN develops its own corporate social responsibility programs, but is also involved in supporting the initiatives of non-profit organizations in fields with a social impact such as: educational and research, humanitarian and cultural.

The main targets of the corporate social responsibility actions, according to the specification of the SNN activity, are:

❖ Actions dedicated to students in the nuclear, energetic, technical field, especially; as well as to young people in general, like contests, creation and invention exhibits etc.;

## ANNUAL REPORT 2017

- ❖ Actions dedicated to the development of local communities in the Cernavoda and Pitesti area, to the improvement of living conditions, access to quality medical services, helping the population in need, providing opportunities for education, development of young people's skills, increasing the number and quality of green areas etc.;
- ❖ Attendance within organizations promoting sustainable public policies in the economic, energetic, social, cultural field, like professional associations, institutes, resource centers etc.;
- ❖ Cultural and educational actions for facilitating public access to personal culture and development, supporting artistic creations and manifestations etc.;
- ❖ Humanitarian actions destined to help population segments affected by natural calamities or singular cases of persons with through certain profile associations, especially actions dedicated to elders and children.

Corporate social responsibility policy of SNN has the purpose the establishment of strategic orientation and priority directions of its involvement in philanthropic-type actions, charitable and humanitarian for the benefit of the community, in areas nearby nuclear objectives operated by SNN (Cernavoda and Pitesti), as well as nationwide. SNN considers that durable development of the company and the sustainability of its long-term development points are strongly connected with the development, education, information, acceptance and public support before the nuclear energy in Romania. Therefore, investing a part of the annual profit of SNN in corporate social responsibility actions represents a part of the company's development strategy during 2015 - 2025.

Corporate social responsibility objectives:

- ❖ Creating and supporting a sustainable business model, with responsible management and global policies adapted to local issues;
- ❖ Responsibility for real issues of the community;
- ❖ Development of relations with the local community, NGOs;
- ❖ Attracting young specialists;



## **ANNUAL REPORT 2017**

❖ Alignment to international standards and good practices of corporate social responsibility practiced by the companies.

In 2017, SNN sponsored educational, social and cultural activities, such as: The educational program “Fizica Altfel” developed by the Center of Assessment and Educational Analyses dedicated to Romanian students and teachers, partially covered the travel costs for the participation of the Romanian team in the “International Space Settlement Design Competition” contest organized by NASA, partially paid the costs for organizing plays by young actors, fitted treatment centers for patients diagnosed with HIV/AIDS, donated computers and other computing technology.

### ***5.13.INTERNATIONAL RELATIONS***

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

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

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





## ANNUAL REPORT 2017

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

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

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

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

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

❖ **World Association of Nuclear Operators (WANO):** represents the association of all owners of nuclear power plants in the world, founded in 1989. SNN has been a member of Atlanta Regional Center since 1991 and in 2011 it became a member of London Coordination Centre. WANO membership guarantees: participation in assessment missions, exchange of experience in operating, technical support, technical and professional development. The WANO membership facilitates the information exchange in the field of exploitation experience of Nuclear Plants, therefore WANO members working together for reaching the highest standards in the field of Nuclear Plants exploitation under high nuclear and reliability security standards. Through WANO, all Nuclear Plant holders may communicate and exchange information between them, openly and cooperatively. This working method allow each WANO member to benefit and learn from the experience of other members, to get in line with the best practices global practices in the field, all with the final purpose of increasing the security degree in exploiting the Nuclear Plants they own.

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

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

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

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

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

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

#### **5.14.LEGAL ACTIVITY/LITIGATION**

Currently, SNN is involved in 95 litigations, out of which:

- 82 civil right/administrative/insolvency/labor law lawsuits;
- 3 criminal lawsuits where SNN is a civil party;
- 10 lawsuits registered at the administrative legal department – litigations with the Court of Auditors.

Out of the total number of 95 litigations, 22 litigations have a value over the equivalent of the amount of 50,000 lei, 21 litigations have a value under the 50,000 lei limit and for 52 litigations, the amount was not yet determined or the object is not valued in money.

For the Court of Auditors litigations, out of 9 litigations where SNN was claimant, causes targeting the cancelation of the measures ruled by the Court of Auditors by administrative deeds, were obtained 6 favorable solutions, 2 unfavorable and there is no solution for one file, up to present time. In parallel with the cancelation files in administrative legal department, in measures ruled by the Court of Auditors were also initiated other 7 files for the suspension of measures ruled by the Court of Auditors, of which 3 were solved favorably and 4 unfavorably, but in 3 of the last cases, the measures were cancelled by the court of law and in one case there is no resolution up to present time. Two of the suspension litigations were settled as final by ICCJ, in favor of the company.

Until the end of 2017, SNN obtained final solutions in 3 litigations, out of which:

- The value of the recoverable receivables out of the trials solved favorably where SNN was claimant in the amount of 9,260,665 lei;
- The value of loss avoided in the favorably solved litigations where SNN was respondent amounts to 41,606,497 lei.

In 01.01.2018 – 15.03.2018, 4 litigations were solved as final, out of which a criminal litigation from which SNN recovered the amount of 13,453,181 lei.

The total amount of losses where SNN was a civil party in the criminal litigations amounts to 14,798,966 lei.

File no. 40046/3/2014 on the dockets of the Bucharest Court of Law by which the claimant Fondul Proprietatea S.A. requested the cancellation of the Decision of the SNN GEMS no.

**ANNUAL REPORT 2017**

8/06.10.2014, by which, among others, was approved the increase of the share capital of SNN with cash input. The first-instance court favorably settled the case by rejecting the case of Fondul Proprietatea. The judgment can be appealed.

A detailed situation of the litigations may be found in Annex VIII of the hereby Report.

***5.15.ACTIVITY RELATED TO RISK 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.

During 2017, progress was made regarding the development of the management system of the integrated risks at the Company's level, among which we summarize the following:

- ❖ Initiating the drafting of a policy for managing the procurement risk;
- ❖ Initiating the inclusion in the provider selection process of their economic-financial analysis;
- ❖ Drafting performance risk analyses regarding the services provided by suppliers and their classification in risk classes;
- ❖ Completing and approving the internal norm for managing the commercial counterparty risk on the PC-OTC market, within the project of initiating the trading on this market;
- ❖ Completing and approving the internal norm regarding the management of the banking counterparty risk, in order to optimize the SNN exposure to this risk, both when making placements in deposits and when receiving letters of guarantee from traders or suppliers;
- ❖ Completing the CASCO strategy and insurance policy of the SNN car fleet and its application for purchasing insurance services;



## ANNUAL REPORT 2017

By the nature of the performed activities, the Company is exposed to different risks, presented hereafter. The SNN leadership follows to reduce the potentially negative effects associated to those risks on the Company's performance.

The nuclear and radiological risk indicators were also mentioned in 2017 at very low levels compared to the limits requested by regulations, which positions the Nuclear Plant from Cernavoda among the most secure in the world.

The other important risk categories have evolved as follows:

### *Market risk*

The market risk represents the variability of the Company's results generated by the fluctuation of the energy price and raw materials and materials.

The SNN activity for selling the electrical energy, the same as of other energy manufacturers, is influenced by the evolution of the energy price and gradual de-regulation of the market.

The gradual market liberalization Calendar for the regulated market, provides that until the end of 2017 the market shall operate freely depending on request and offer, and the regulating prices shall disappear. Thus, starting with January 01, 2018, the electricity market is fully liberalized.

For captive consumers with Last Instance Suppliers, there is the possibility of changing the supplier and switch to the competition market or remain with the same supplier.

The market price on the regulated segment of the market is not influenced by the ratio between supply and demand, but is set by the regulator (ANRE).

On the other hand, the competition market price is influenced by a lot of factors such as: consumption evolution on the local market and on the regional markets, corroborated with the process of aligning the day ahead electrical energy market in Romania by complying with the coupling mechanism through price, of the markets from the Czech Republic, Slovenia and Hungary, the structure of the energy market and the competition capacity of the main manufacturers, the production evolution out of renewable sources and its supporting graphics, the increase of the inter-connection capacities.



## ANNUAL REPORT 2017

The Company is exposed to a price risk on the competition market. Considering the cost structure and the rate of the fixed costs in the total costs which may affect the profitability under the conditions of maintaining certain lower prices for an extended period of time, the price risk may become significant and may have a big impact on the operational performance.

Starting with the second quarter of 2017 there was an increase of the traded energy volumes concluded on the competition markets, and a decrease of transactions on the regulated market and on the spot market,

The average price obtained by SNN was below the level of the regulated price until December 2016, in the first 3 months of 2017 it was over the regulated price, in April-May it was again below the regulated one, and from June 2017 to the end of the year it increased again.

Starting with September 2016, the prices on PZU were in average a lot higher than the prices of the bilateral contracts concluded on OPCOM implemented by SNN, especially in January – March 2017, and starting with December 2017, therefore resulting a very high volatility of prices on the spot market, which induces a high price.

The advantages of reducing the exposure on the spot market, where price volatility is very high, there is: security of income and predictability for the following years, obtaining average prices on the market, a clear trading policy decreasing the market risks and complying with the operating frame of the electrical energy market, transparent, public, centralized and non-discriminating.

In the same time, SNN is exposed to the risk of price increase for raw materials and materials, caused by the reduced number of providers and in lack of long-term contracts, which may provide price stability. As a risk handling strategy, the following measures are taken: contractual clauses negotiation in order to obtain a fixed price for the entire period of the contract, where the law allow it or for the possibility to review prices under clearly established conditions and based on supporting documents; contracts conclusion on a long term, according to the current law, identifying new providers.

2017, especially the first quarter, was characterized by a high volatility of the market, a situation that affected all the market operators. Compared to other manufacturers which production is by season or connected to the balancing opportunities of SEN, the Company also constantly produces and is more exposed than other manufacturers, to the market risks. Nevertheless, the SNN financial statements prove that the Company provided a good

## ANNUAL REPORT 2017

control of those risks, managing to minimize the operational results, the differences compared to 2016 being mostly due to financial transactions and not being serious from the point of view of efficiency of investors.

### *Credit and counterparty risk*

Financial assets, which may subject the Company to credit risk are mainly trade receivables, cash and cash equivalents and bank deposits. For Limitation of counterparty risk exposure limits are set domestic assets placed at different financial institutions (banks).

The counterparty risk represents the risk of the business partners not to act in accordance with the terms and conditions stipulated in the contracts or failure to fulfill the established things.

Currently, SNN trades on term markets (PCCB-LE, PCCB-NC, PCSU), allowing to know the counter-party only at the end of the tender. For mitigating the counter-party risk, the contractual terms provide the coverage with securities (PCCB-LE, PCCB-NC – payment in advance, letter of bank guarantee), reducing counterparty risks.

The company considers the entering on PC-OTC market administrated by OPCOM, allowing the selection of clients based on their credit risk analysis, following to conclude contracts only with solvable partners. In 2017, risk limits were set for several counterparties on the PC-OTC, and SNN negotiated with them regarding the contractual conditions related to this market.

The counter-party risk consists also in the performance risk (contract performance). On the PCCB-LE market, under the conditions of price volatility, there are situations when the counter-party may opt for the termination of the contract and payment of such termination penalty (the counter-value of the energy delivered in a month), and buying the amount of energy for the market, more favorable price. For SNN, this situation also has the risk of reselling the entire non-delivered amount for the market price, under the initial contract prices or for the Balancing Market, not very beneficial.

The termination risk is higher for the contracts concluded for longer periods of time, because in their case, the market price should drop less than in case of short-term contracts, so that the termination can be more beneficial for the buyer. Also, the very high price

## ANNUAL REPORT 2017

oscillations and the records registered on PZU in the beginning of 2017 caused huge difficulties for most of the market participants, and they could not comply with their ongoing contracts. Nevertheless, no contracts were terminated in 2017.

On the PC-OTC market, in case of termination, the counter-party must pay a termination price, equal to the difference between the contract price and the market price, in order to cover the loss caused by replacing the contract for a non-beneficial price, so theoretically the termination risk is very low.

The company manages the counter-party risk also by monitoring the cash-in on term of its receivables and by relevant measures in case of lack of payment, including recovery measures through litigations. The limits shall be monitored in order not to exceed, therefore decreasing the counter-party risk in relation with bank institutions. Also, in case of contracts with significant value and/or products/services provided of high importance, the respective counter-parties are periodically monitored in order not to affect the activity of the organization and in order to anticipate the performance issues in complying with the contractual obligations. The reduced level on uncertain receivables prove an effective management of those risks.

### *Liquidity and cash - flow risk*

Liquidity risk is the risk that the Company could face difficulties in fulfilling the obligations associated with the financial debts which are settled by cash or transfer of another financial asset.

The company applies a prudent management of the liquidity risk by maintaining a proper proportion of cash an equivalent in cash in current accounts and bank deposits according to maturity terms. The company has enough resources to fulfill its obligations to third parties: banks, suppliers, State, employees, etc. Moreover, the current liquidity indicator is situated on an exceptional level, resulting that the liquidity risk for SNN is extremely low.

### *Currency risk*

The currency risk represents the market risk specific to transactions in a foreign currency, materializing in case of credit facilities contracted in a foreign currency and service imports, utilities and materials. The Company is exposed to the volatility of EURO, USD, CAD currencies.



## ANNUAL REPORT 2017

The income and loss from exchange rate, performed and not performed are registered in the loss and profit account of that year. During the next period shall be analyzed the opportunity to use financial instruments for decreasing this risk.

### *Interest rate risk*

Interest rate risk is a market risk. The company's cash flow is affected by the variations of the interest rate mainly due to long-term loans. These loans have a variable interest rate determined on the basis of the reference index and fixed interest rate margin. The interest risk is lower because the fix margin represents the main rate from the interest rate, while the variable part, as it shall manifest high unfavorable volatility, shall be attenuated by deposits interests for which the respective trend shall be favorable, resulting a hedging effect determined by the very good Company liquidity.

### *Competition risk*

It is a specific risk for each business, lower or higher depending on the number of competitors, profit margins, used technology, input and/or exit limits on the market, the regulation level etc.

Also, due to the alignment of day-ahead market ("PZU") of Romania, in compliance with the coupling mechanism of the market price of the Czech Republic, Slovenia and Hungary, SNN is exposed to increased regional competition generated by future improvements, refurbishment, extensions and new constructions expected to be made by the producers of the national electricity market.

As a specific characteristic of the nuclear energy, the cost of electrical energy produced from nuclear sources is estimated to remain lower than the cost of production facilities based on coal or natural gas, which are very sensitive to the increase of the fuel price and the costs regarding the compliance of the regulations regarding the environment protection (e.g. carbon dioxide emissions).

The integration of energy markets is a Europe-wide strategic objective assumed by all Member States of the European Union. Given the higher final prices in the region, electricity trading outside Romania will continue to be an opportunity for local players. As a result, the decrease in domestic consumption is expected to be partially offset by exports, given a slight increase in production.

## ANNUAL REPORT 2017

One of the factors that may mitigate these risks is to consider negotiating of long-term contracts with predefined prices and specific commercial terms on liquidation and contractual penalties in order to reduce the volatility of the collection period by providing the necessary cash flow operations and investments.

### *Macroeconomic and legislative risks*

The legal risk (regulation risk) is represented by the unpredictability of the internal and/or external legal frame, with a consequence of a difficult compliance with its/ their requirements. In SNN there is a risk which may manifest regarding the large number of regulations and requirements issued and requested by national and international regulators and/or professional associations.

Possible changes may refer to the requirement, by local and central authorities, and/or by the authority regulating the energy field (“ANRE”), through the secondary law, of new contractual provisions or fiscal amendments.

Effects of manifestation of the legislative risk:

(a)(a) Un-estimated increase of production costs, which may determine the drop of profit margins.

(b) A significant organizational and financial effort for the implementing, compliance and assurance of compliance on continuous bases of the legislative frame and requirements of the professional organizations governing the activity of the Nuclear Plants.

One of the risks manifested starting with 2017 was represented by the proposal of modifying the fees applied by the regulator of the electricity market, ANRE, from 0.08% to 1% of the turnover, but there was no modification until the beginning of 2018.

### *Operational risk*

The operational risks are associated with the risk of registering a loss which shall result either from the use of certain processes, persons or inadequate internal systems or that didn't comply with their function accurately, or from external events. The operational risk includes the legal risk (legal).

## ANNUAL REPORT 2017

The operational risk is managed and controlled adequately, at the highest levels of international practices, like distribution (for all hierarchical levels and all organizational entities of SNN) with specific instruments (e.g.: protection barriers, redundant systems and insurance frame (and management) for the business continuity, internal regulation frame, checks, approval levels, continuous preparation of the personnel, permanent monitoring of the risk levels and implementing adequate control and corrective measures etc.).

Through the management and control methods of those risks, one can see:

- (a) A management frame providing the complete identification and addressing of operational risks;
- (b) The use of risk information collected to improve the control mechanisms (lessons learnt);
- (c) Good planning and development of preventive maintenance activities for checking the nuclear risks, as well as for reducing the number of hours of unplanned interruptions;
- (d) Planning and posting activity interruptions.

An impact of the operational risks consists in the cost of unbalances, resulting from the inefficient prognosis of production or out of technical reasons (internal or external) which cause unplanned interruptions.

### *Risk Insurance*

The main insurance policies in force are Material Damage Property (“MD”), Third-Party Liability (“TPL”) and D&O.

The MD policy, is concluded with Nuclear Risk Insurers Ltd., the biggest global provider of insurance capacity, with the support of the London market, including the Lloyds, the Romanian Insurance Pool for Nuclear Risks and European Mutual Association for Nuclear Insurance, EMANI. The insured amount is 1,560,000,000 USD, covering only the buildings from the protected perimeter, for Unit 1 and Unit 2 CNE Cernavoda. The other administrative buildings outside the protected perimeter are covered by the premium.

The TPL policy was concluded with Nuclear Risk Insurers Ltd. (co-insurance with the Romanian Insurance Pool for Nuclear Risks). The allowance limit in case of nuclear accident amounts to 300,000,000 SDR. The total value insured by the MD and TPL premiums amounts to 2,004 mil. USD.

## ANNUAL REPORT 2017

Insurance policy of D&O is concluded for a sum insured as approved corporate (3 mil. EUR for each director and that director with contract terms, limits and units are determined based on the number of managers and executives including politics and seven administrators and two directors present).

The component of the NRI consortium, for MD and TPL and the list of re-insurers for D&O, reveals that the integral part of these consortiums are the insurers and re-insurers of first class, with a maximum trust level.

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.

### **5.16.PERSPECTIVE ELEMENTS**

As it concerns the perspective of energy sales on medium and long term (up to three years) we consider, based on the data related to more developed European energy markets, that the price competitive market will not undergone any significant changes in terms of increasing or decreasing ample.

The new electricity market context leads to the necessity to identify new investment opportunities including by diversifying the activity portfolio in activities included in the electricity value chain, for reducing the business risk and assuring a proper efficiency adequate to the own capital.

Continuation and development of Project Units 3 and 4 Cernavoda NPP may create favorable perspectives on long term for SNN, both regarding the recovery of the assets already invested in the project and some additional incomes which may be obtained from services (operation), namely goods supply (supply of nuclear fuel bundles).

Equally, refurbishment of Unit 1 project is a project whose success depends essential for maintaining the production capacity in the future at a level similar to that of today.

### **5.1.7. FACTORS THAT MAY INFLUENCE LIQUIDITY**

Among the factors that may affect the company's liquidity in the future, we mention:

- Energy prices on the competitive market sale;

## ANNUAL REPORT 2017

- The price of the main raw materials used by the company in the current activity;
- Fluctuations in interest rates and the exchange;
- The volume of investments to maintain and those to develop;
- The level of taxation, including the introduction of new taxes.

There are many internal and external factors that may influence the company's liquidity, but on short and even medium term, the company has a very good liquidity.

### 5.1.8. CURRENT AND ANTICIPATED CAPITAL COSTS

SNN structured the investment development program by objectives defined in relation to the needs of the production branches (CNE Cernavoda and FCN Pitesti), so that the electricity and nuclear fuel production capabilities would be maintained on the level of project parameters, by complying with the nuclear security requirements and by protecting its own operating personnel, the environment and the population. At the same time, the goal of the development program is to cover the necessity to upgrade/refurbish certain systems, for economic reasons (specific consumption reductions, improvement of certain parameters related to served processes, with a positive impact on efficiency), and legal ones – the need to implement upgrades associated with nuclear security, environment protection and labor security, representing imperative requirements from the regulatory authorities in the field.

The main investment objectives included in the management plan of SNN for the period 2013 – 2017 are:

- ❖ The intermediate dry used fuel storage (including SICA U#2), which is part of the company's used fuel management policy. The storage will be developed in several stages and it is to finally include 27 storage modules, according to the feasibility study in force; the first 9 modules are MACSTOR 200 (Modular Air-Cooled STORage) modules with 12,000 bundles per module, the rest of the modules are MACSTOR 400 type with 24,000 bundles per module, according to the approval of DICA development strategy that provides using of MACSTOR 400 modules which will provide the 50 year storage of the dry used fuel. MACSTOR 400 involves the same technology training and spent fuel storage as with MACSTOR 200, but has a double storage capacity.
- ❖ The modernization and extension of the physical protection system, for the facilities located both inside and outside the protected area and the implementation of the works resulted after the assessment regarding the operation of the critical infrastructure within the vital structures in case of beyond project base threats.

## ANNUAL REPORT 2017

❖ The improvement of the CNE Cernavoda response, respectively of the nuclear security functions in case of events outside the design bases following the nuclear accident occurred at the nuclear plant Fukushima 1, Japan – implementing a emergency filtered depressurizing of the envelope at Units 1 and 2 CNE Cernavoda, implementing a breaking disc assembly and a water input system in the coffer of the calender at Unit 1 and Unit 2, implementing a monitoring and control system of the H2 concentration in the atmosphere from the envelope at Unit 1 and Unit 2, by installing a monitoring system of the hydrogen in the atmosphere from the envelope type "HERMETIS" and by installing a passive auto-catalytical re-combination system type "FR1-380T", including the establishment in Unit 5 of areas necessary and logistic for the action development in case of occurrence of a severe accident.

The total value of the investment program for 2017 is 231,593 thousand lei (without the component allocated to the payment of the debt service related to long-term loans), a program certified by the Decision no. 10/22.02.2017 of the SNN BoD and approved by the Decision no. 1/29.03.2017 of the GOMS of SNN.

The structure of the investment program for 2017 is presented in the table below:

No.	Organizational structure	Ongoing investments [thousand lei]	New investments [thousand lei]	Investments made at the tangible assets (upgrades) [thousand lei]	Equipment [thousand lei]	Total [thousand lei]	Degree of completion 31.12.2017 (%)
1	Sediul Central	11,020	5,352	0	1855	18,227	4.4%
2	CNE Cernavoda	107,935	14,110	1,925	72,789	196,759	44.4%
3	FCN Pitesti	300	366	5,641	10,300	16,607	28.0%
	<b>Total</b>	<b>119,255</b>	<b>19,828</b>	<b>7,566</b>	<b>84,944</b>	<b>231,593</b>	<b>40.0%</b>

The degree of completion at 31.12.2017 of the value of the annual investment plan cumulated since the beginning of the year is of 40.0%.

The total low degree of implementation of the plan value of the investment program in 2017 is explained by the amounts stipulated in the investment program for the Executive SNN, which were postponed for 2018:

❖ *SNN contribution to the establishment of the IPP company type for the completion of Cernavoda NPP Units 3-4* estimated to 8,920 thousand lei (equivalent of 2,000 thousand

## ANNUAL REPORT 2017

euros), according to the resolution of the EGMS no. 7/22.08.2014 for approving the strategy for the Project of Units 3 and 4 from Cernavoda NPP. The essential prior condition is represented by the approval by AGEA of the Investment Documents with the Selected Investor - a process implemented by the Negotiation Board and coordinated by the Inter-ministry Commission for Project U3 - U4, and this contribution will be implemented after creating the project company. By the SNN EGMS Decision no. 6/24.08.2017 was approved the continuation of negotiations on the Investment Documents under the same conditions of the Agreement Memorandum regarding the development, building, operation and decommissioning of Units 3 and 4 from Cernavoda NPP ("MoU"), until February 24, 2018. In this context, the SNN contribution to creating new project companies shall be reported for 2018.

❖ *European Liability Insurance for Nuclear Industry* - estimated at 5,352 thousand lei (equivalent value 1,200 thousand euros), representing the contribution of the company as a new member in the European Mutual Association for Civil Liability Insurance ("ELINI"), for the purpose of benefitting from the advantages of the association; the approval of joining ELINI is within the competence of AGEA SNN and is estimated to be actually performed in 2018.

❖ *Consolidation of Magheru Office* estimated to 2,100 thousand lei – in 2016 was opened the land book for the two undivided units (5 and 6 floor) and the land of SNN in surface of 239.05 sq m was registered. The actual investment was not started until the end of 2017, as the majority owner (Transelectrica S.A.) has not initiated the consolidation operations.

The works performed as well as obstacles during performing the investment objectives within the 2017 investment project of FCN are presented below:

❖ *Modernization of the fuel bundle manufacture line in order to optimize the flow of manufacturing and improving the quality of the finished product* - in value of 728 thousand lei. In August 2017 the *Mini-autoclave* equipment was received. Within the procurement procedure for *Automated systems for the isokinetic determination of powder and gas emissions from dispersion baskets* (design and performance), the documentation was submitted with SNN and observations were formulated and will be implemented in 2018.

❖ *Upgrade of the communication infrastructure, creating the data center according to standard TIA 942-1 and implementing measures to reduce the risk of information security (Security project for information systems and communication security)* – in value of 900 thousand lei, the performance of such investment is conditioned by initiating the

## ANNUAL REPORT 2017

investment project at the Central Office level *Upgrade and integration of the information flow at the SNN level*, estimated to be initiated starting with 2018.

❖ *Integrated information system for the management of nuclear fuel production (SIMP)* – in value of 300,000 thousand lei, during 2016 was reviewed and approved the feasibility study of the investment. The project performance was postponed for 2018.

❖ Development and implementation of computer applications supplementing the existing ERP system in FCN (procurements, budgets, contracts) was postponed for 2018, and it was a common FCN-CNE-SNN purchase.

❖ In November 2017 the contract for *Hydro-insulation works at FCN buildings* was signed, and in December the postponing of the start of the works was approved by an addendum to the contract, because of unfavorable weather conditions.

Out of the investments completed in 2017 we mention: capital repairs for Harper 2 sintering furnace, capital repairs on the Feitool press, powder glazing installation and cap-grille welding installation, for which the startup tests were performed at the end of 2017.

Some of the investments that were planned in 2017 and were not performed are contracted or are under contracting at the end of 2017, completion deadline 2018.

Regarding the investment program of CNE Cernavoda we mention that, during 2017, 39 investment projects were developed. A series of important works were performed according to the performance graphic such as:

❖ Installing a backup fan in the turbine labyrinth sealing steam system at U2 - 134 thousand lei;

❖ Improving the live steam system of U1 by replacing the steam discharge valves in the atmosphere (ASDV) with another type of valves - MPA 581 – 134 thousand lei;

❖ Installing access gates in the supply water intake/preheater are – 3,550 thousand lei;

❖ Fitting the simulator intervention support center – 76 thousand lei;

❖ Retooling the balls cleaning system of the U1 condenser – 173 thousand lei;

❖ Fitting the transformers 1-5144-T03/T04 and 1-5134-T05/T06 with a system for preventing explosion and fire – 329 thousand lei.

Most of the investment projects cumulated delays both in developing the acquisition procedures and in their implementing, which explains the reduced degree of performance of the CNE Cernavoda investment program.



## ANNUAL REPORT 2017

In terms of major investment objectives (PJ-05-016 Intermediary Used Fuel Storage, including SICA U#2, PJ-04-001 Modernization and expansion of physical protection systems, PJ-11-006 Improving of CNE response, respectively nuclear safety functions in case of events outside the design basis following the nuclear accident occurred at the Fukushima nuclear power plant), the their total value planned in the 2017 revised SNN investment program is 80,972 thousand lei.

The achievement for major investment objectives by the end of 2017 compared to the investment program of the Company is 27.6%, according to the table below:

Project code	Project name/ investment objective	2017		Achievement level [%]
		Planned BVC [thousand lei]	Achieved until 31.12.2017 [thousand lei]	
PJ-05-016	Intermediary used fuel storage (including SICA U2)	23,743	18,343	77.3%
PJ-04-001	Modernization and expansion of physical security system	16,150	2,631	16.3%
PJ-11-006	Improving of CNE Cernavoda response, namely of nuclear security functions in case of events outside the projection bases due to the nuclear accident occurred at the nuclear plant Fukushima 1, Japan	41,079	1,334	3.2%
<b>Total</b>		<b>80,972</b>	<b>22,309</b>	<b>27.6%</b>

By Decision no. 1/29.03.2017 of the SNN GOMS was approved the upgrade of Annexes 1 and 1.1 to the management contracts concluded between the administrators and the Company, where the target degree of performing the major investment objectives at the end of quarter IV 2017% is 90%. Considering this target objective, it results a performance degree of 30.7 % of the provided target.

The low degree for performing the major investment objectives is due to:

### ❖ *Intermediary used fuel storage (including SICA U#2)*

In 2017 the reception and startup of Module 8 of DICA and the construction works of Module 9 DICA were performed, both of type MACSTOR 200. At the same time, the design services for extending the site of the Burnt Fuel Intermediary Warehouse were completed and replacing the modules type MACSTOR 200 with MACSTOR 400 modules

## ANNUAL REPORT 2017

starting with module 10. Delays were performed in contracting assessment services and drafting environment studies in order to obtain the DICA Environment Agreement, because of the necessity of defining as clearly as possible the requirements of the Tender Book, namely successively redrafting the procurement documentation. On the other hand, there were savings by partially not using the various unforeseen expenses, included by the designer in the estimate for the land-foundation fitting works for DICA, modules 8, 9 and 10.

### ❖ *Modernization and expansion of physical security system*

In March 2017, an industrial security certificate (ORNIS) was obtained, and the technical project was drafted and approved until September 30, 2017 according to the contractual schedule. Some of the implementation works scheduled for 2017 were postponed for 2018, because of the delays accumulated in the process of drafting/approving the technical project and the performance details.

### ❖ *Improving of CNE Cernavoda response, namely of nuclear security functions in case of events outside the projection bases due to the nuclear accident occurred at the nuclear plant Fukushima 1, Japan*

Within the objective of changing the destination of the existing constructions on the location of Unit 5, the delay in performing the activities of the performance details based on the contractual schedule was caused by the fact that some of the design documentation sent by the contractor was not fully compliant with the requirements of CNE Cernavoda, and it was returned with the comments of the contractor, which led to delays in the approval and implementation processes. The implementation degree was also caused by difficulties in purchasing equipment with special requirements.

The main investments considered for 2018 - 2019 are:

- ❖ Intermediate burnt fuel storage (including SICA U#2) – 29,328 thousand lei;
- ❖ Upgrade and extension of the physical protection – 68,997 thousand lei;
- ❖ Improving the CNE Cernavoda response, respectively the nuclear security functions in case of events outside the design bases following the nuclear accident occurred at the Fukushima 1 nuclear plant, Japan – 80,184 thousand lei;
- ❖ Extension of the life period of U1 by re-tubing the reactor and retooling the main systems – 99,415 thousand lei;
- ❖ The increase of the reliability of the EVA 8000 storage system that ensures the centralized storage of the production of the computer system of CNE Cernavoda by replacing it - 18,800 thousand lei;

## ANNUAL REPORT 2017

❖ Increasing the safety in the operation of the power evacuation system of CNE Cernavoda, by retooling the power evacuation transformers and providing a spare trafo for two units – 11,296 thousand lei.

The investment program for 2018 – 2019 is as follows (amounts included in the investment budget project):

Investments [thousand lei]	2018	2019
<b>Investments Program, out of which:</b>	<b>244,868</b>	<b>338,254</b>
- CNE Cernavoda	203,226	231,752
- FCN Pitesti	10,645	12,920
- Sediul Central	30,997	93,582

On medium and long term is necessary SNN preserve their sources of funding for the implementation of significant investment projects:

- The project of refurbishment of Cernavoda NPP Unit 1, with an estimated value between 1.2 – 1.5 billion EUR and an implementation period of 2.2 – 5 years, after the first life cycle of Unit 1;
- The investment in the tritium removal installation with an estimated value of 170 - 180 million. the final investment decision will be submitted for approval by the General Meeting of Shareholders in the near future.

### 5.1.9. EVENTS, TRANSACTIONS AND ECONOMIC CHANGES AFFECTING THE INCOMES

The income from the main activity is significantly affected by:

- Production of electricity by CNE Cernavoda, closely related to the operational performance of the two nuclear units;
- Compliance with gradual liberalization schedule of the market and the company's contribution to the cart covered (risk following to be eliminated starting 2018)
- Regulated prices set by ANRE (elimination starting 2018);

## ANNUAL REPORT 2017

- Evolution of prices on the competitive market and the company's ability to successfully compete in these conditions.

## 6. TANGIBLE ASSETS

### ***6.1.LOCATION AND CHARACTERISTICS OF MAIN PRODUCTION CAPACITIES***

Cernavoda Nuclear Power Plant is located in Constanta approx. 2 km southeast of the town of Cernavoda, approx. 1.5 km northeast of the first shuttle of navigable channel Danube-Black Sea. The platform designed for building the structures of CNE Cernavoda is bordered at the north by Cismelei Valley and at south-west by 223 County Road. The south and east limit consists of hilly natural formations. For location of the Nuclear Power Plant with 5 CANDU 600 units an area of 72 hectares was arranged by excavating and leveling of former limestone quarries Ilie Barza. The resulting platform is + 16.00 share mdMB (Baltic Sea level).

The plant is designed to operate at load curve base. It has a turbo-generator supplying gross electric power of approx. 700 MWe gross each (706.5 MWe Unit 1, respectively, 704.8 MWe Unit 2) using the steam produced by the energy developed in a nuclear reactor type CANDU-PHWR-6 (Canadian Deuterium Uranium - Heavy Water Reactor Pressurized). This type of reactor uses heavy water as moderator and coolant in two separate systems. Fuel consists of natural uranium as sintered uranium dioxide pills, wrapped in zircaloy and assembled in bundles containing 37 fuel elements each.

Ceramic pellets contained inside a fuel element, are able to retain fission products inside them. Loading and unloading of reactor fuel is continuous, bidirectional and under load. The reactor is equipped with a heat transport system with two independent loops, which transfer the heat produced in the fuel by the controlled fission reaction in chain in the four steam generators to produce steam from the light water. Saturated steam from the steam generators is expanded in the turbine by putting it in motion and is then condensed using cooling water taken from the Danube through an open intake channel and race no. 1 of the Danube-Black Sea Canal (CDMN). The electricity produced is discharged in the National Power Network through the 400 kV Cernavoda plant belonging to Transelectrica.

Within the company also operates the Subsidiary Fabrica de Combustibil Nuclear (FCN) Pitesti, with head office in Arges county, town Mioveni. FCN is the owner of a land in surface of 23.273 sq m, of which 8.458 sq m is occupied by production departments, storage and offices, and the rest is a free surface. Within FCN Pitesti is performed the



## **ANNUAL REPORT 2017**

production of the nuclear fuel bundles, using as raw material the sintering uranium dioxide powder (UO<sub>2</sub>).

### ***6.2.THE DEPRECIATION DEGREE OF THE ASSETS***

The two nuclear power units within the CNE Cernavoda have an initial life cycle of 30 years, that can be extended for another 25 years after a refurbishment process. Unit 1 was commissioned in 1996 while Unit 2 was commissioned in 2007. Every two years, nuclear units are switched off for maintenance shutdowns planned in the program. The Nuclear Fuel Plant in Pitesti was founded in 1992, and the first batch of nuclear fuel bundles was produced in 1994.

### ***6.3.OPERATIONAL PERFORMANCE INDICATORS***

The gross annual capacity factor (GCF) in 2017 was 97.14% for Unit 1 and respectively 89.72% for Unit 2. The annual gross capacity factor since in service (GCF) until the end of 2017 was 90.69% for Unit 1, and respectively 94.29% for Unit 2.

Operating performance of nuclear units in SNN portfolio SNN can be assessed objectively considering the statistics presented by international agencies or specialized publications.

According to the rankings from the Nuclear Engineering International magazine (January 2018), where the performance of the 378 nuclear reactors that operated until the end of June 2017 is presented, Romania is first in the world (depending on the average capacity factor from startup to the end of the 2nd quarter of 2017).

## **7. MARKET OF SECURITIES ISSUED BY THE COMPANY**

### ***7.1.THE ROMANIAN MARKETS AND THE MARKETS OF OTHER COUNTRIES WHERE THE SECURITIES ISSUED BY THE COMPANY ARE TRADED***

Consequently to the Initial Public Offer of 25,368,236 shares, representing 10% of the share capital of S.N.N., offer developed during the period 09.09.2013 – 20.09.2013, the SNN shares are traded on the regulated market managed by the Bucharest Stock Exchange (BSE) since 04.11.2013, on the category I, having the issuant symbol “SNN” and ISIN code ROSNNEACNOR8. Starting with 05.01.2015, the SNN shares have been traded on the Premium category of BSE.

## ANNUAL REPORT 2017

The selection of issuers in order to analyze for the promotion in the Premium category is performed based on the following alternative criteria:

- The actions are among the most liquid 25 titles, after the liquidity coefficient;
- The free-float capitalization average for the last 3 months exceeds the amount of EUR 40 million.

On the date of 31.12.2017, the total number of shares issued by SNN is 301,513,851 shares. The record of shares is kept by the Central Depository, as independent registry company, authorized by the Authority for Financial Surveillance.

The evolution of the share capital increases:

Shareholders	Shares [mil.]	Percent	Shareholders	Shares [mil.]	Percent	Shareholders	Shares [mil.]	Percent	Shareholders	Shares [mil.]	Percent
Ministry of Economy	229,00	90,27%	Ministry of Economy	229,00	81,27%	Ministry of Energy, Small and Medium sized Enterprises and Business Environment	248,44	82,48%	Ministry of Energy	248,73	82,49%
Fondul Proprietatea S.A.	24,70	9,73%	Fondul Proprietatea S.A.	27,40	9,73%	Fondul Proprietatea S.A.	27,40	9,10%	Fondul Proprietatea S.A.	27,40	9,09%
			Free float	25,40	9,00%	Free float	25,36	8,42%	Free float	25,36	8,41%
<b>Total</b>	<b>253,70</b>	<b>100%</b>	<b>Total</b>	<b>281,80</b>	<b>100%</b>	<b>Total</b>	<b>301,22</b>	<b>100%</b>	<b>Total</b>	<b>301,51</b>	<b>100%</b>



<ul style="list-style-type: none"> <li>- IPO followed by an allocation rights issue, traded between 4 and 28 October 2013.</li> <li>- The shares were listed on the main segment of the Bucharest Stock Exchange (symbol: SNN) starting 4 November 2013.</li> <li>- Including in indexes: BET Index 1.99%, BET-XT Index 1.53%.</li> </ul>	<ul style="list-style-type: none"> <li>- IPO for a 10% stake (new shares).</li> <li>- Subscription period: 9-20 September 2013.</li> <li>- Closed book for the institutional tranche.</li> <li>- Oversubscription of 5.6 and 3.7 times for the two retail tranches (small subscription tranche fully subscribed by the end of day 2).</li> <li>- Deal Value (mn): RON 281.9 (~EUR 62.6).</li> <li>- Total share capital increase value (mn): RON 312.5 (~EUR 69.4).</li> </ul>	<ul style="list-style-type: none"> <li>- Share capital increase by 19,438,285 shares out of the total of 23,917,263 shares provided for trading.</li> <li>- Subscription period: 05.01.2015 – 02.04.2015.</li> <li>- The share capital increase represents the acknowledgment of the contributions from the state budget by budget allocations in 2006 - 2009 and 4,479,539 shares provided based on the preemption right.</li> </ul>	<ul style="list-style-type: none"> <li>- Share capital increase with 292,810 shares representing the in-kind contribution of the Romanian State in value of 2,928,100 lei.</li> <li>- Subscription period: 19.10.2015 – 18.11.2015.</li> <li>- 62,201 newly issued shares were provided for subscription to registered shareholders on the registration date, based on the preemption right. These shares were not subscribed.</li> </ul>
---	--	---	---



## ANNUAL REPORT 2017

	<ul style="list-style-type: none"> <li>- Market Cap Post IPO (mn): RON 3,150 (~EUR 700).</li> </ul>	<ul style="list-style-type: none"> <li>- Allocation percentage: 81.2730%.</li> <li>- Increase value: RON 194,382,850 (EUR 43,196,188).</li> </ul>	
--	---	---	--

## 7.2.DIVIDEND POLICY

### *Applicable legal provisions*

SNN is a national company with majority state owned capital. Thus, the distribution of the profit is carried out in compliance with the provisions of Government Ordinance no. 64/2001 (“OG 64/2001”) regarding the distribution of profit at national companies, national enterprises with full or majority state owned companies, as well as autonomous authorities, as subsequently modified. Thus, in compliance with the provisions of OG 64/2011, the minimum dividend distribution quota is of 50% of the net remaining profit after the distributions provided at art. 1 paragraph (1) letter a) – e) of OG 64/2011. The legal framework could be modified in the future by amendment of the minimum dividend distribution quota.

The provisions of OG 64/2001 establish a minimum mandatory dividend distribution quota. Thus, as long as the provisions of OG 64/2001 remain unchanged, the company may propose to the shareholders a dividend distribution quota between 50% and 100% of the distributable profit. The profit quota which will be annually distributed by the company as dividend is subject to the approval of the General Meeting of Shareholders.

### *Situation regarding the distribution of dividend profit in the last 3 years*

For the year 2017, the proposed gross dividend (271.362.466 RON) are in amount of 93,07% of the net profit, percentage applicable to the distributable profit after the allocation to the destinations provided at art. 1 paragraph 1 letters a) – e) of OG 64/2001 to which is added the amount representing the “employees’ participation to profit”, in view of reunification of the base. For the year 2017, in accordance with the provisions of the Government Memorandum on the “Empowerment of the state representatives in the general meetings of shareholders/board of directors, as applicable, at national companies, national enterprises and companies with full or majority state owned capital, as well as autonomous authorities, in view of taking necessary measures to distribute a quota of 90% of the net profit achieved in 2017 as dividends/payments to the state budget”, a minimum quota of 90% must be distributed as dividends out of the profit remaining after the distributions provided at art. 1 paragraph 1 letters a)-e) of OG 64/2001. In direct relation to the net profit (without the reunification of the base with the provision created for the employees participation to profit), the dividend distribution percentage is of 90,67%. The

## ANNUAL REPORT 2017

percentage of 90,67% results from the rounding of the gross dividend per share proposed of 0,90 lei gross/share.

Out of the net profit of the financial year 2016, a dividend distribution quota of 92,76% was approved, and from the profit of the financial year 2015, a dividend distribution quota of 70,10% was approved, in compliance with the provisions of art. 1 paragraph (1) letter f) of OG 64/2001, as subsequently amended.

As per the resolution 8/28.09.2017, the Ordinary General Meeting of SNN shareholders approved the distribution of the amount of 110.000.000 lei representing additional dividends from reserves and retained earnings, as per art. II and III of OUG 29/2017 for the amendment of art. 1 paragraph (1) letter g) of the Government Ordinance no. 64/2001 for the distribution of profit at national companies, national enterprises and companies with full or majority state owned capital, as well as autonomous authorities and for the amendment of art. 1 paragraph (2) and (3) of the Government Ordinance no. 109/2011 regarding corporate governance of national companies, to SNN shareholders, in proportion with their participation to the share capital.

### *Method of calculation and payment*

The dividends are distributed to the shareholders in proportion to their participation quota in the share capital of the company; each fully paid share gives the owner the right to receive dividends. Details regarding the payment methods, the tax retaining methods and the payment are available on SNN website in the Investor Relations section/GMS.

### *Principles to be considered in establishing dividends in the future*

The proposal of the dividend distribution quota to the GMS in the future, the Board of Directors will consider the following criteria, in the order presented below:

- ❖ Compliance with the provisions of OG 64/2001 and other applicable legal documents and related ones, including the minimum dividend distribution rate provided by these legal documents;
- ❖ Maintaining a balance between the need to compensate the shareholders through dividends and the financing necessities of the company through own sources, including the investment projects.
- ❖ The correlation between the profit distributable to dividends and the monetary correspondence of the distributable profit, namely that part of the distributable profit with monetary correspondence after the adjustment of the non monetary elements; this has the purpose of avoiding the decapitalization of the company in case of decoupling



## ANNUAL REPORT 2017

between the profit distributable to dividends and the monetary counterpart of the profit;

- ❖ The possibility to ensure the dividend yield in correlation with other similar listed companies, as well as a correlation of the dividend per share in absolute value to the previous period. There is no guarantee that these conditions will be ensured in the future.

More information regarding the dividend can be accessed in the Annual reports available on the company's website in the Invest relations/GMS section.

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

Indicator [thousand lei]	2017 <sup>*)</sup>	2016	2015
Net profit restated <sup>**) </sup>	-	113.195.896	170.612.763
Effect of the correction of accounting errors	-	(746.445)	(21.469.034)
<b>Net profit</b>	<b>303.876.268</b>	<b>112.449.451</b>	<b>149.143.729</b>
Distribution to the legal reserve	(17.845.334)	(6.518.506)	(9.590.178)
Other reserves representing tax facilities provided by law	(7.721.372)	(2.454.218)	(1.168.929)
<b>Net profit distributable to the dividend</b>	<b>278.309.562</b>	<b>103.476.727</b>	<b>138.384.622</b>
Employees' participation to the profit	(13.265.000)	(3.793.000)	(3.563.000)
<b>Net profit calculation base, dividend distribution</b>	<b>291.574.562</b>	<b>107.269.727</b>	<b>141.947.622</b>
<b>Proposed dividends</b>	<b>271.362.466</b>	<b>99.499.571</b>	<b>99.499.571</b>
Allocated dividends	271.362.466	99.499.571	99.499.571
Additional dividends <sup>***)</sup>	-	110.000.000	-
Dividends paid until 31.12.2017	-	209.413.552	99.483.174
<b>Profit distribution rate (%)</b>	<b>93,07%</b>	<b>92,76%</b>	<b>70,10%</b>

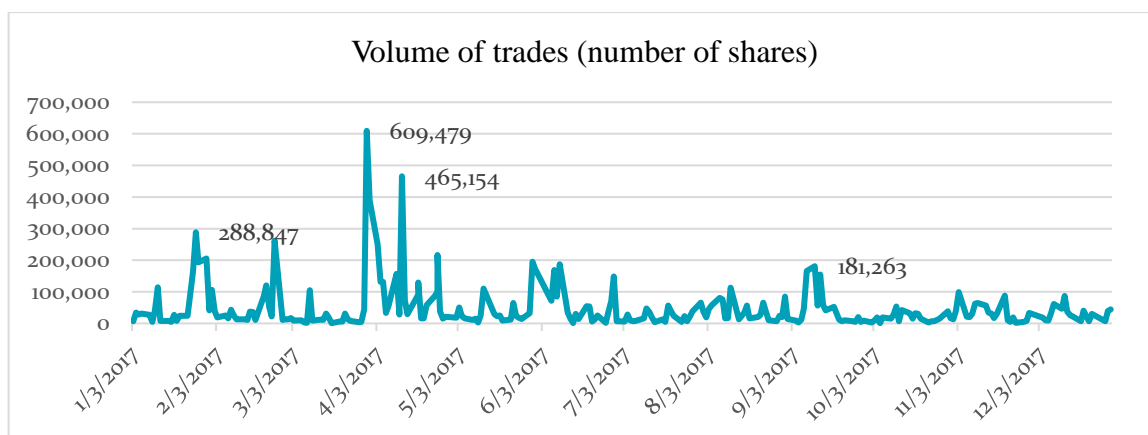
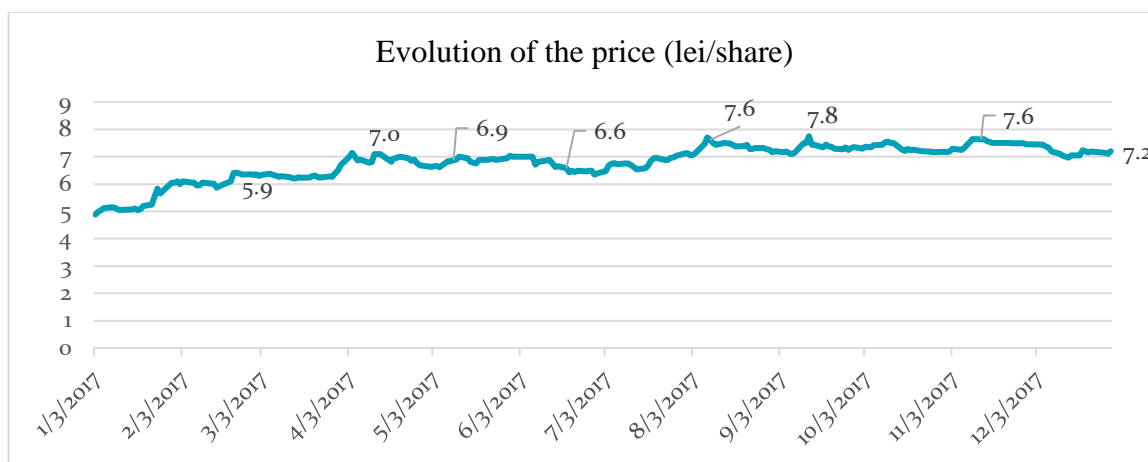
<sup>\*)</sup> For 2017, the indicators represent the profit distribution proposal of the Board of Directors and is subjected to the approval of the Ordinary General Assembly of Shareholders of SNN. In the distribution proposal, the amount proposed to be distributed as "employees participation to profit" is in amount of 13.265.000 RON; in order to comply with the budgeted amounts provided in the 2017 rectified 2017 Revenues and Expenditures Budget, approved by the Board of Directors resolution no. 80/10.11.2017.

<sup>\*\*)</sup>  At 31 December 2017, in compliance with the correction of accounting errors, detailed in the Audited Individual Financial Statements as at and for the financial year ended at 31 December 2017 (Note #)

<sup>\*\*\*)</sup> As per resolution no. 8/28.09.2018, the OGMS approved the distribution of the amount of 110.000.000 lei representing additional dividends from reserves and retained earnings, on the basis of art. II and III of the Government Ordinance no. 29/2017 for the amendned of art. 1 paragraph (1) letter g) of the Government Ordinance no. 64/2001 for the distribution of profit at national companies, national enterprises and companies with full or majority state owned capital, as well as autonomous authorities and for the amendment of art. 1 paragraph (2) and (3) of the Government Ordinance no. 109/2011 regarding corporate governance of national companies, to SNN shareholders, in proportion with their participation to the share capital.

### 7.3.ACTIVITY OF SNN AT BSE

The progress of SNN shares in period December 1 - 31, 2017:



The activity of SNN during 2017 as issuer of securities on the capital market in Romania, is shown as follows:



## ANNUAL REPORT 2017

- ❖ In 2017, a total of 29,808 transactions took place, with a daily average number of 119.71 transactions;
- ❖ The total volume of SNN traded shares was 11,622,302 shares;
- ❖ The value of transactions with SNN shares in 2017 was 78,679,837.12 shares;
- ❖ In 2017, two “Deals” trades were performed, 190,660 shares in total;
- ❖ The price of one SNN share during 2017 was between a maximum amount of 7.75 lei and a minimum amount of 4.88 lei, increasing compared to the amounts registered during 2016 when the maximum amount was 6.48 lei and the minimum amount was 4.54 lei;
- ❖ The stock capitalization on the last trading day of 2017 was 2,170,899,727 lei, decreasing compared to the amount of 1,448,774,054 lei, at the end of 2016.

### ***7.4.PRESENCE IN THE INDEXES***

The Bucharest Stock Exchange (BSE) calculates and distributes in real time 8 internal indexes – BET, BET-TR, BET-XT, BET-XT-TR, BET-BK, BET-FI, BET-NG, BET Plus – and an index developed with the Stock Exchange of Vienna, the ROTX index.

The BSE indexes reflect the progress of prices of the most traded companies listed or the progress of certain representative fields, like the financial or energy field. As calculation methodology, all the BSE indexes are weighted price indexes with free float capitalization, with maximum limits for the weight price of constituent companies. Except for the most recent launched index, BET Total Return BET-TR and BET-XT-TR, which are adjusted for the dividends, the other indexes only reflect the progress of market prices.

The SNN shares were included in the structure of indexes of the Bucharest Stock Exchanges (BSE) with the following weights, on the adjustment date 19.12.2017 (the latest adjustment)

- ❖ 1.34% in the BET index (Bucharest Exchange Trading – reference index of the capital market, a pondered price index with the free floating capitalization of the most liquid 10 companies listed on the BSE regulated market). Starting with 2015, for selection under this

## ANNUAL REPORT 2017

index also apply criteria regarding the issuers transparency and the reporting and communication quality with the investors;

- ❖ 4.23% in the BET-BK index (Bucharest Exchange Trading Benchmark Index) calculated as a pondered price index by the free-floating capitalization of the most traded 25 companies listed on the BSE regulated market);

- ❖ 1.17% in the BET-XT index (Bucharest Exchange Trading Extended Index), blue-chip index, reflects the progress of prices of the most liquid 25 traded companies in the regulated market segment, including the SIFs, the maximum rate of a symbol in the index being 15%;

- ❖ 3.25% in the BET-NG index (Bucharest Exchange Trading Energy & Related Utilities - sector index following the movement of prices of the shares of companies, whereof the main activity field is associated to the “energy and utility” sector, the maximum rate of a symbol in the index being 30%);

- ❖ 1.37% in the BET-TR index (Bucharest Exchange Trading Total Return Index), index reflecting both the progress of prices of constituent companies, and the dividends offered by them. 1.03% in the BET-XT-TR index, total return type of the BET-XT index, including the most 25 traded Romanian companies listed at BSE;

- ❖ 1.19% in the BET Plus (Bucharest Exchange Trading Plus Index), an index reflecting the progress of Romanian companies listed on BSE regulated market, which fulfill the minimum selection criteria regarding the liquidity and the value of shares included in the free float, except for the financial investment companies (SIFs);

- ❖ 1.20% in the BET-XT-TR index (BET-XT-TR is the total return type of the BET-XT index, including the most 25 traded Romanian companies listed at BSE. The BET-XT-TR index reflects both the evolution of the prices of constituent companies and the dividends offered by them).

## ***7.5.COMMUNICATION WITH THE SHAREHOLDERS AND INVESTORS***

The activity of Communication and Relations with the Investors is developed according to the legal provisions in force included in the Law no. 31/1990 republished, of the companies, as further amended and completed to date of GEO no. 109/2011 regarding the corporate governance of public enterprises, Law no. 297/2004 regarding capital market, Law 24/2017 on issuers of financial instruments and market operations, Regulation no. 1/2006 regarding the issuance and the securities operations, Regulation n. 6/2009 regarding the application of certain rights of the shareholders at the general assemblies of shareholders, the Code of Bucharest Stock Exchanges, Code of the Central Depository and the regulations of the Financial Surveillance Authority (ASF).

## ANNUAL REPORT 2017

Internally, the efficient integration of financial, legislative, corporate governance and corporate social responsibility information of interest for the investors and shareholders as well as the communication of such information, either as requirement according to the reporting data of a company listed on the stock, or on the shareholders', investors' requests and other third parties' requests, interested in the progress of company.

The communication process is a symmetrical two way system, focused on feedback and, implicitly, on the constant development of the relationship with the investors. The main highlights are: meetings with investors and analysts, conferences and media briefings, private meetings with the shareholders, tele and videoconferencing, dedicated section on the company's website, access to relevant information about the company and its activity, as well as to reports and policies, communication of the significant information with impact on the company and its shareholders and potential investors.

The purpose is an efficient communication, adjusted based on the market feedback, which allows the shareholders to comprehend and assess, based on objective information, sent in real time, the changes occurred on the samples of trading, the development directions of the company, the information with an impact on the risk administration strategies.

The actions of communication with shareholders and investors were concretized in 2017 in:

- ❖ Organization of meetings with the investors for the presentation of financial results;
- ❖ Organization of teleconferences, in accordance with the financial calendar of the company;
- ❖ Posting of presentations and audio recordings from teleconferences with investors on the SNN website;
- ❖ Immediate transmission of information on the request of shareholders, potential investors and participants to the capital market;
- ❖ Participation in conferences organized by third parties regarding the capital market of Romania and presentation of financial results and company development opportunities (BVB, Wood's, Fondul Proprietatea etc.);
- ❖ Participation of the company representatives to information seminars organized by the relevant authorities for the improvement of corporate governance and development of transparency towards the shareholders;

## ANNUAL REPORT 2017

- ❖ The organization of the General Assemblies of Shareholders and other actions related to shareholders' rights: distributing dividends related to financial year 2016 and additional dividends following the application of the provisions of art. II and art. III of Government Emergency Ordinance no. 29/2017;
- ❖ Information gathering, issuance and checking of current reports, their transmission to the competent authorities (BSE and ASF) and their publishing on the company website, observing the terms required by the legislation in force;
- ❖ Attending training courses and discussion sessions regarding corporate governance standards, communication platforms with investors and other instruments provided by the capital market authorities;
- ❖ Updating the SNN site for improving the shareholders' and investors' access to relevant information and facilitating the understanding and profitability of acquiring the capacity of SNN shareholder.

## 7.6.FURTHER INFORMATION

During the financial year ended on 31.12.2017 there were no transactions regarding the procurement by SNN of own shares and bonds issued by SNN and/or other types of receivables. SNN pays on time its liabilities incurred by the credit facilities and fulfilled the financial conditions included in the relevant agreements.

## 8. INDIVIDUAL FINANCIAL STATEMENTS AS OF 31.12.2017

The individual financial statements are attached. Extracts containing the main elements are presented below.

### *Financial position statement*

Indicator [thousand lei]	2017 (audited)	2016 (audited, restated_
Non-current assets	6.948.684	7.293.659
Current assets	2.239.865	1.992.193
<b>Total assets</b>	<b>9.188.549</b>	<b>9.285.852</b>
Equity	7.428.146	7.336.046
Total liability, out of which:	1.760.403	1.949.806
Long-term liability	1.308.219	1.512.956
Short-term liability	452.184	436.850



## ANNUAL REPORT 2017

Total Equity and Liability	9.188.549	9.285.852
----------------------------	-----------	-----------

### *Profit and loss account and comprehensive result*

Indicator [thousand lei]	2017 (audited)	2016 (audited, restated)
Operating revenues	1.932.900	1.680.220
Operating expenses	(1.557.574)	(1.523.299)
<b>Operating profit</b>	<b>375.326</b>	<b>156.921</b>
Financial revenues	75.654	89.991
Financial expenses	(94.102)	(118.995)
<b>Net finance costs</b>	<b>(18.448)</b>	<b>(29.004)</b>
<b>Profit before income tax</b>	<b>356.878</b>	<b>127.917</b>
Income tax expenses, net	(53.002)	(14.721)
<b>Profit for the year</b>	<b>303.876</b>	<b>113.196</b>
<b>Other comprehensive income</b>	<b>704</b>	<b>(60)</b>
<b>Comprehensive income</b>	<b>304.580</b>	<b>113.136</b>
<b>Basic earnings per share (Ron/share)</b>	<b>1,01</b>	<b>0,38</b>
<b>Diluted earnings per share (Ron/share)</b>	<b>1,01</b>	<b>0,38</b>

### *Cash flow statement*

Indicator [thousand lei]	2017 (audited)	2016 (audited, restated)
Profit before income tax	356.878	127.917
Adjustments and value amendments	536.890	465.850
Cash flow related to operational activities	893.769	593.768
Net cash flow from operating activities	833.564	578.016
Cash flow used in investing activities	(90.417)	(260.463)
Cash flow from financing activities	(432.958)	(311.216)
Net increase in cash and cash equivalents	310.189	6.337
Cash and cash equivalents at the beginning of the period	263.714	257.377
Cash and cash equivalents at the end of the period	573.903	263.714

## 9. CONSOLIDATED FINANCIAL STATEMENTS AS OF 31.12.2017

The consolidated financial statements are attached. Extracts containing the main elements are presented below.

### *Financial position statement*

Indicator [thousand lei]	2017 (audited)	2016 (audited, restated)
Non-current assets	6.948.646	7.293.089
Current assets	2.239.856	1.992.715
<b>Total assets</b>	<b>9.188.502</b>	<b>9.285.804</b>
Equity	7.428.050	7.335.955
Total liability, out of which:	1.760.452	1.949.849
Long-term liability	1.308.219	1.512.956
Short-term liability	452.233	436.893
<b>Total Equity and Liability</b>	<b>9.188.502</b>	<b>9.285.804</b>

### *Profit and loss account and comprehensive result*

Indicator [thousand lei]	2017 (audited)	2016 (audited, restated)
Operating revenues	1.932.904	1.680.223
Operating expenses	(1.557.579)	(1.524.984)
<b>Operating profit</b>	<b>375.325</b>	<b>155.239</b>
Financial revenues	75.652	89.990
Financial expenses	(94.104)	(119.003)
<b>Net finance costs</b>	<b>(18.452)</b>	<b>(29.013)</b>
<b>Profit before income tax</b>	<b>356.873</b>	<b>126.226</b>
Income tax expenses, net	(53.002)	(14.722)
<b>Profit for the year</b>	<b>303.871</b>	<b>111.504</b>
<b>Other comprehensive income</b>	<b>704</b>	<b>(60)</b>



## ANNUAL REPORT 2017

Comprehensive income	304.575	111.444
Basic earnings per share (Ron/share)	1,01	0,37
Diluted earnings per share (Ron/share)	1,01	0,37

### Cash flow statement

Indicator [thousand lei]	2017 (audited)	2016 (audited, restated)
Profit before income tax	356.874	126.225
Adjustments and value amendments	546.001	465.458
Cash flow related to operational activities	902.875	591.683
Net cash flow from operating activities	842.669	575.936
Cash flow used in investing activities	(99.524)	(260.463)
Cash flow from financing activities	(432.958)	(311.216)
Net increase in cash and cash equivalents	310.187	4.257
Cash and cash equivalents at the beginning of the period	264.200	259.943
Cash and cash equivalents at the end of the period	574.387	264.200

## 10. CORPORATE GOVERNANCE DECLARATION

### 10.1. IMPLEMENTATION OF THE CORPORATE GOVERNANCE PRINCIPLES

In 2017, SNN continued the implementation of the corporate governance best practices in order to align the internal procedures to the new quality requirements related to the company's admission on the Bucharest Stock Exchange.

Implementation of the corporate governance rules provides a transparent decisional process, based on clear and objective rules mean to lead to an increase of the trust level of the shareholders in the company. SNN provides a special importance to corporate governance, analyzing the compliance level with the provisions of the new Corporate Governance Code issued by Bucharest BSE effective on January 4th, 2016. SNN issued a current report at the beginning of 2016 regarding the application of the code's provisions within its activity, identifying those provisions ongoing to be implemented and for which the necessary actions were performed in 2017. In Annex IX to the hereby Report, is presented the stage of the up-to-date implementation of the Corporate Governance Code of the Bucharest BSE on the level of 2017.

For the activity of relations with the investors performed in 2016-2017 and for the degree of transparency, accuracy and completeness of information and the accessibility of the



## ANNUAL REPORT 2017

Nuclearelectrica site, the company received grade 10/10 from BSE in the White Charter of Listed Companies, which assessed 85 issuers on the capital market of Romania.

The Corporate Governance Rules of SNN (available on the Company's webpage), provides the support integrated management in the optimum relationship of issuer- shareholders/ investors/analysts by non-discriminating compliance of their rights, establishing a balance between management, leadership and assumed performance objectives, on one hand, and the control, namely, the evaluation of the efficiency and performance, the adequate administration of real and potential risks, the careful oversight of the observance of the regulations in force, on the other hand.

In order to implement corporate governance principles, SNN implemented a series of corporate governance actions in 2017 which focused mainly on:

- ❖ The payment of the dividends related to financial year 2016 and the additional dividends granted in virtue of the provisions of art. II and art. III of Government Emergency Ordinance no. 29/2017 was carried out in compliance with the legislation in force applicable to issuers, without incidents, on the basis of a transparent procedure and related documents published on the Company's webpage, within a dedicated section.

- ❖ In compliance with the provisions of art. 113 let. g par. 3 and 4 from Regulation no. 1/2006 regarding the issuers of securities, SNN sent current reports to BVB and ASF. SNN reported the legal documents with directors, employees, controlling shareholders, and with the persons with whom they operate in a concerted manner, whose cumulated value represents at least the equivalent value in lei of 50,000 euros (Art. 225 par. 1 of Law no. 297/2004 regarding the capital market and art. 82 of Law 24/2017). The disseminated current reports are uploaded on the webpage of SNN and contain the following information: the parties of the agreement, the conclusion date and nature of the legal document, the description of the object, the total value of the legal document, mutual receivables, warranties, penalties, due dates and payment methods.

- ❖ SNN sends current reports to BVB and ASF for the information of the shareholders regarding any event which modified the patrimony of the Company or the financial statements, in compliance with the due dates provided in the legislation applicable to issuers of securities with shares accepted for trading on the regulated market.

- ❖ SNN published and will continue to publish on its webpage quarterly, half-yearly and annual reports both in English and in Romanian, informing the Bucharest Stock Exchange as well.

## ANNUAL REPORT 2017

❖ Three representatives of the SNN managers participated in 2017 in 4 events dedicated to the relations with the investors (business to business) organized by Woods&Co, BVB, FP within which it directly interacted with the investors, on top management level.

❖ SNN organized 4 teleconferences and a "face to face" meeting with the investors for presenting the financial results, according to the financial calendar posted at the beginning of the year.

Within SNN operates a department dedicated to the investors' relations – Department of Communication and Investors Relations, which role is represented by the implementation and monitoring of corporate governance standards at the Company's level, notifying the shareholders and investors according to the legal provisions, proactive communication focused on the target group, on the notification needs of the investors and on the analysis of the market trends.

❖ Measures taken towards ensuring transparency, namely:

- A dedicated section for investors relations of the website of the Company;
- On SNN's webpage, in the Investors Relations section, there is a dedicated subsection for the General Meetings of Shareholders, where SNN publishes convening notices and documents related to each GMS, GMS resolution projects, special power of attorney and correspondence voting ballots, for legal entities, as well as for natural persons, the resolutions of the GMS and the result of the votes. Also, SNN publishes on its webpage information materials dedicated to the shareholders;
- The SNN site also offers several instruments regarding the calculation of investments, graphs, trading summary;
- The publication of the resolutions of the general meetings of shareholders, within 24 hours since the date of the meeting on the webpage of the Company;
- The section dedicated to Relations with Investors on the internet page of the company contains the main corporate regulations existing on Company level, bilingual: Articles of Incorporation, the Corporate Governance Regulation that contains the reference terms of the Board of Directors, the Regulations of the consultative committees, the Organization Regulation and the Regulation for the AGA Meetings;
- Communication of current and periodical financial reports (quarterly, bi-annual and annual) to the BVB and ASF and posting them on the Company's internet page, accompanied by the Reports of the relevant auditor;



## ANNUAL REPORT 2017

- Submitting updated information regarding the members of the BoD: members CV-s, other professional commitments of the BoD members, including executive and non-executive positions in the BoDs of other companies or non-profit institutions, status of independent members, as the case may be;
  - Presentation performed by SNN for investors during the main financial events of the company, according to the financial calendar are posted on the Company's website, including the audio files of the recordings;
  - The graphic of the stock exchange evolution of the SNN share price.

❖ As per the provisions of article 149 of the CNVM Regulation no. 1/2006 and art. 18 par (2) of the EU Regulation no. 596/2014 regarding market abuse SNN approved an internal policy regarding the legal conditions applicable to privileged information, the legal provisions and the sanctions that can be applied in case of the inadequate/abusive use and in case of the inadequate circulation/unauthorized disclosure of privileged information and updated the lists of persons with access to privileged information with permanent and temporary access.

❖ At the level of the company, an internal procedure regarding the elaboration, signing and dissemination of the current report to BVB and the Financial Supervisory Authority was established. Up to present, the reporting due dates were not exceeded.

❖ All the conditions have been met for the shareholders to exercise their voting rights through correspondence or electronic means, before the date of the meeting, in compliance with the provisions of art. 45 par. 6 of Government Emergency Ordinance no. 109/2011. Thus, the Regulation for the organization and unfolding of the General Meetings of Shareholders provides "the correspondence vote" as a method to exercise one's voting rights, with strict and precise rules on this matter.

The responsible person for relations with investors within SNN is Valentina Dinu. Manager of the Department of Communication with Investors

Contact data:

Telephone: 021.203.82.77

E-mail: [vdinu@nuclearelectrica.ro](mailto:vdinu@nuclearelectrica.ro)

Fax: 021.316.94.00

## ***10.2.THE GENERAL MEETING OF SHAREHOLDERS***



## ANNUAL REPORT 2017

The corporate bodies of SNN, a company managed in a unitary system, are structured as follows: General Assembly of Shareholders, the highest decision forum of the Company, and the Board of Directors.

### *The General Meeting of Shareholders (GMS)*

The General Meeting of Shareholders is the main corporate governance body of the company, which decides on the economic and business policy and activity of the company. SNN has established and implemented solid internal procedures governing the organization and development of GMS, as well as rules governing the latter's legal and statutory activity, in accordance with the Articles of Incorporation and the applicable laws. In terms of its structure, depending on the items which require the approval of the shareholders, the General Meeting of Shareholders may be ordinary or extraordinary.

### *The Ordinary General Meeting of Shareholders (OGMS)*

The main responsibilities of the Ordinary General Meeting of Shareholders (OGMS) are:

- Discusses, approved and changes the annual financial statements of the basis of the reports presented by the Board of Directors and financial auditor;
- Establishes the distribution of the net profit and the value of the dividend;
- Elects and revokes members of the Board of Directors;
- Appoints and dismisses the financial auditor and established the minimal duration of the financial audit contract;
- Establishes the general limits of the CEO and Managers remuneration;
- Establishes the remuneration of the members of the Board of Directors, as well as the terms and conditions of the mandate contract concluded with the members of the Board of Directors;
- Decides upon the administration of the Board members
- Approves the strategy and the development policies of the Company;
- Establishes the annual revenues and expenditures budget for the next financial year;
- Decides upon the mortgage, renting and constituting as real estate guarantees the assets of the Company;
- Approves the reports of the Board of Directors regarding its activity;
- Decides in any aspect related to the Company, in compliance with its legal attributions, under the condition that the matters fall under the competence of the General Meeting of Shareholders;
- Analyzes and solves other issues submitted by the Board of Directors.



## ANNUAL REPORT 2017

### *The Extraordinary General Meeting of Shareholder (EGMS)*

The main responsibilities of the Extraordinary General Meeting of Shareholders (EGMS) are:

- Approves the change of the company's legal condition;
- Approves the change of the company's headquarters location;
- Approves the change of the company's object of activity;
- Approves the establishment or dissolution of secondary headquarters: subsidiaries, agencies, offices and other units without legal entity;
- Approves share capital increase, reduction and consolidation through the issue of shares;
- Approves merger with other companies and division of the Company;
- Approves anticipated dissolution of the Company;
- Approves the issuance of shares;
- Approves the conversion of shares from one category to another;
- Approves the conversion of a category of bonds into another or to shares;
- Authorizes the acquisition by the company of its own shares, and establishes the means of obtaining the maximum number of shares to be acquired, their minimum and maximum equivalent amount and operation period, in compliance with the law; it also establishes the method of alienation of own shares acquired by the company;
- Approves the acquisition, sell, exchange and pledge as guarantee assets of the Company from the „non-current assets” category, the value of which exceeds, separately and cumulated, 20% of the total non-current asset of the Company, less receivables for a financial year;
- Approves the renting of tangible assets, for a period greater than a year, if the separate or cumulated value for the sale contractor or implicated parties who act together exceeds 20% of the total tangible assets, less receivables at the date of conclusion of the legal document, as well as the associations for a period larger than one year, exceeding the same value;
- Approves any amendment to the Articles of Incorporation and any other resolution for which the approval of the Extraordinary General Meeting of Shareholders is required;
- Approves the mandate of Nuclearelectrica's representatives in the General Meeting of Shareholders for:
  - Changing the share capital of S.C Energonuclear S.A;
  - Changing the participation rate of SNN to the share capital of S.C Energonuclear S.A;
  - Dissolution and liquidation of S.C Energonuclear S.A;

## ANNUAL REPORT 2017

- Any investment by S.C Energonuclear S.A exceeding 50.000.000 euro (fifty million euro) for a single transaction and/or exceeding 50.000.000 euro (fifty million euro) cumulated with other transactions in any financial year;
- Conclusion by S.C Energonuclear S.A of any contract involving costs or taking any important obligations by S.C Energonuclear S.A exceeding 50.000.000 euro (fifty million euro), individually or cumulated, in a single financial year;
- Any effective or proposed sale, any other alienation or any assets or rights of S.C Energonuclear S.A, any effective or proposed acquisition of assets or rights by S.C Energonuclear S.A exceeding the cumulated amount of 50.000.000 euro (fifty million euro);
- Contracting, by S.C Energonuclear S.A of any types of loans or debts or obligations of loan types with a values exceeding 50.000.000 euro (fifty million euro).

In addition to the above mentioned responsibilities established by the Law, the Extraordinary General Meeting of Shareholders decides on the following matters:

- Conclusion by the Company of any contract, obligation or engagement that might involve expenses or assumption of any important obligation by the Company, as per the competence limits provided in the Addendum 1 to the Articles of Incorporation;
- Engagement by the Company of any type of loans, debts or obligations as per the competence limits provided in Addendum 1 to the Articles of Incorporation;
- Establishment or participation to the establishment of companies or conclusion by the Company of any type of association, including joint ventures.

### *Quorum and majority requirements*

The quorum shall be checked by the meeting president regarding each decision in part, prior to voting the respective decision.

#### *(a) OGMS*

For the first convocation of the meeting, requirements shall be met provided that the shareholders, representing at least 1/4 of the company's share capital, are attending the meeting or are represented. The resolutions can be validly adopted only when the shareholders representing the majority of the cast votes are voting "for". For the second convocation, the meeting can validly adopt resolutions regardless of the attending number of shareholders, simply through the vote cast by the shareholders representing the majority of the cast votes.

#### *(b) EGMS*



## ANNUAL REPORT 2017

For the first convocation of the meeting, the quorum requirements shall be met provided that the shareholders, representing at least 1/4 of the company's share capital, are attending the meeting. The resolutions can be validly adopted only when the shareholders representing the majority of the cast votes are voting "for". For the second convocation, the meeting can validly adopt resolutions included on the agenda of the first meeting convocation provided that the shareholders, representing at least 1/5 of the company's share capital, are attending the meeting or are represented.

The resolutions meant to amend the main object of activity of the company, the resolutions meant to increase or reduce the capital, to change of legal form of the company, or referring to mergers, division or dissolution of the company shall be adopted by a majority of at least 2/3 of the voting rights held by the shareholders or their proper representatives attending the meeting.

### *GMS convening process*

The General Meeting of Shareholders is convened by the Board of Directors. The General Meeting of Shareholders, either ordinary or extraordinary, will be convened when needed, in compliance with the legal requirements and the provisions of the articles of incorporation, by publishing the convening notice in the Official Gazette of Romania, Part IV and in a national newspaper or a local newspaper from the location of the Company's headquarters with at least 30 days before the established date, as well as on the Company's web page. All information will be disseminated both in Romanian and in English.

The General Meeting of Shareholders may be convoked in the following situations:

- (i) As a result of the resolution of the SNN's Board of Directors, of the President of the Board of Directors or of one of its members, based on the power of attorney given by the President;
- (ii) As a result of the request of a shareholder or of some shareholders who individually or jointly hold 5% of the share capital, if the request contains dispositions included in the meeting's responsibilities/functions.

The Ordinary General Meetings of Shareholders are held at least once a year, within maximum 4 (four) months after the end of the financial year, for the examination of the previous year's financial statements and for establishing the activity program and the budget for the current year.



## ANNUAL REPORT 2017

The meeting cannot be appointed earlier than thirty days after the publication of the convening notice in the Official Gazette of Romania, Part IV.

As per the applicable provisions (Law number 31/1990, GEO number 109/2011, the regulation number 6/2009) and the provisions of the Articles of Incorporation, the GMS Convening notice must include at least the following information:

- Name of the issuer;
- Date, starting hour and location for the first and the second convening notice of the GMS;
- The proposed agenda, with the explicit mention of all the issues under debate in the meeting;
- The clear and precise description of the procedures that must be respected by the shareholders in order to participate and vote within the general meeting, with regards to:
  - The right of one or more shareholders representing separately or jointly at least 5% of the share capital of the Company, to introduce items on the agenda (accompanied by a justification), within at least 15 days since the publication of the convening notice and to present resolution proposals for the items included or proposed for inclusion on the agenda of the meeting. The amended convening notice with the items proposed by the shareholders must be published with at least 10 days before the General Meeting of Shareholders, at the date mentioned in the initial convening notice.
  - The exact specification of the fact that the voting right can be exercised directly, through representative, or through correspondence and the respective conditions for each method. When exercising the vote by proxy (representation), the fact that for this type the (special and general) mandating forms must be used will be taken into consideration. Access to the special/general powers of attorney for the GMS, the due date and the address where they must be sent, as well as the requirements for the company to accept the electronic notification regarding the empowerment of representatives Procedures that allow the vote by correspondence.
- The reference date, as well as the information that only the persons who are shareholders at the reference date, have the right to attend and to vote within the general meeting;
- The deadline until which candidates may be proposed for administrators positions, in case the agenda includes the election of administrators. The convening notice will mention



#### ANNUAL REPORT 2017

that the list with the information regarding the names, residence and professional qualification of the persons proposed for the position of member of the Board of Directors is available to the shareholders and can be consulted and amended by the shareholders;

- The address where the shareholders may obtain the full text of the documents and the resolution proposals, other information regarding the items on the agenda of the general meeting and the date at which the information will be available, as well as the respective procedure;
- When the agenda includes modifications to the Articles of Incorporation, the convening notice must include the text of the proposals;
- The webpage address of the Company;
- The proposal regarding the registration date;
- the proposal regarding the ex-date and payment date, if applicable;
- The exact specification of the fact that the voting right can be exercised directly, through representative, proxy or through correspondence and the respective conditions for each method;
- The dissemination method of the ballot for vote through correspondence and the special power of attorney for representation within the GMS, as well as the date of their availability;
- The due date and address where the special powers of attorney, the correspondence ballots and the mandates of the shareholders must be sent;
- The indication of the exact address where the special powers of attorney and the correspondence ballots must be sent;
- The fact that the significant shareholders are entitled to opt for the application of the cumulative vote for electing the members of the Board of Directors, if the matter is on the agenda of GMS according to the provisions of art. 84 of Law 24/2017.

The convening notice, other points added to the agenda of the meeting as per the request of shareholders, the financial statements, the annual report as well as the proposal regarding the distribution of profits are made available to the shareholders at the company's



## ANNUAL REPORT 2017

headquarters, at the date of the convocation of the GMS and are published on the company's website, for the information of the shareholders. By requests, copies of these documents are made available to the shareholders.

The shareholders representing separately or together at least 5% of the share capital may request the introduction of new items on the agenda and may present resolution proposals for the items on the agenda, by means of a request addressed to the Board of Directors, no later than 15 days before the publication of the convening notice. The amended agenda with the items introduced by the shareholders must be published with at least 10 days before the general shareholders meeting, at the date mentioned in the convening notice.

Each shareholder may address the BoD questions in writing for the points registered on the GMS agenda, before the date of the GMS, following to receive an answer during the Meeting. The Company undertakes to respond to questions addressed by the shareholders. The Company may draft a general answer for the questions with the same content. It is considered a given answer is the information requested is published on the company's webpage [www.nuclearelectrica.ro](http://www.nuclearelectrica.ro) as question - response.

In compliance with the capital market regulations, the resolution projects subjected to the approval of the GMS, as well as the other supporting documents must be published on the webpage of the Company.

### *GMS organization procedure*

SNN has established and implements internal rules for the organization and carrying out of the GMSs, which require specific competence and responsibilities for various organization structures and departments of the company within GMS organization. These regulations are intended to regulate the entire internal stream of documents and information, procedures and logistics as well as the external process which consists in properly informing the company's shareholders about the aspects related to the convoked meetings.

The shareholders may participate and vote in the General Meeting of Shareholders through representation based on a power of attorney for that specific General Meeting of Shareholders or for a period not exceeding 3 years. The proxy cannot be substituted by another person. In case the empowered person is a legal entity, it can exercise its mandate through any person member of the administration or management of the company or its employees.



## ANNUAL REPORT 2017

The legal persons may be represented by their legal representatives who, in their turn, may give a power of attorney to other persons for that specific General Meeting of Shareholders. When the State is involved, the proper Minister may designate their permanent representatives in the General Meeting of Shareholders, in compliance with the above mentioned legal requirements and conditions.

In addition to the organization regulation of the GMSs, SNN fully complies with the laws regulating and governing the organization process of GMS of the listed companies.

Within 24 hours after the date when the GMS took place, the company draws up a current report in which it will briefly present how the GMS is organized and the resolutions adopted. The report will be disseminated to the capital market institutions, namely the BVB, and will be published on the company's website.

### *Shares and shareholders' rights*

The Company's shares are nominative, of equal values and are issued in a dematerialized form, by registration in the account and equal rights are provided to their holders.

Each subscribed and paid share provides equal right and confers them the right to vote in the GMS, the right to elect and be elected in the leadership, the right to attend the profit distribution, according to the provisions of the Articles of Incorporation and legal provisions, as well as other rights provided in the Articles of Incorporation and applicable legal provisions.

The shares issued under dematerialized form are traded on a regulated market, according to the law of the capital market. The rights and obligations of shares follow the actions in case of their passing under other persons' ownership. Shareholders have the right to correct and completely inform the GMS on the Company's situation. In case of issuing new shares, the existent shareholders have a preference right on the registration, according to the law, proportionally with the share percentage owned by the Company.

The SNN shareholders may exert the right to vote as follows:



## ANNUAL REPORT 2017

1. Direct vote - personally, within GMS;
2. Vote by representative with special or general power of attorney;
3. Vote through correspondence.

All financial instruments holders issued by SNN from the same type and class of titles benefit from equal treatment, and the Company permanently makes sustained efforts to perform an effective, active and transparent communication in order to perform the right in an equitable manner.

### **10.3.THE MANAGEMENT OF THE COMPANY**

#### **10.3.1.THE BOARD OF DIRECTORS**

##### *Structure. Appointment of members. Eligibility criteria*

The executive body of the company is the Board of Directors and consists of 7 members, non-executive. Following the expiry of the mandate of six out of the seven directors appointed for a 4-year mandate, according to the provisions of GEO 109/2011, on 25.04.2017, the General Assembly of Shareholders of 24.04.2017 appointed 6 temporary directors for a 4-month mandate starting with 26.04.2017, according to the provisions of art. 64<sup>1</sup> par (4) and (5) of GEO 109/2011, until the completion of the director selection procedure based on the provisions of the same GEO. Subsequently, in 2017, there were two other Ordinary General Assemblies of Shareholders that appointed temporary members in the Board of Directors for temporary 4-month mandates:

- 24.08.2017 – appointing temporary directors according to the provisions of art. 64<sup>1</sup> par (4) and (5) of GEO 109/2011 starting with 27.08.2017;
- 20.12.2017 – appointing temporary directors for a 4-month mandate starting with 28.12.2017 or until the completion of the director selection procedure according to the provisions of GEO 109/2011 approved by Law 111/2016, by the method of the cumulative vote upon the request of the majority shareholder, the Ministry of Energy.

Additionally, by the Resolution of AGOA 7/28.09.2018, the initiation of the procedure for the selection of the members of the Board of Directors of SN Nuclearelectrica S.A. according to the provisions of GEO no. 109/2011, as further amended and supplemented,

## ANNUAL REPORT 2017

a section introduced in the agenda upon the request of the majority shareholder, the Ministry of Energy. “The procedure of selecting 6 members of the Board of Directors to be appointed by the Romanian State in order to be elected in the general assembly of shareholders will be implemented by the Ministry of Energy as a public custody authority, according to the provisions of art. 29 par. (3) and par. (4) of Law no. 109/2011, as further amended and supplemented”.

Considering the fact that the members of the Board of Directors were appointed for temporary mandates of 4 months starting with 26.04.2017, in the interim period, according to the legal provisions, the Board of Directors did not submit to the approval of AGA an administration plan and was only paid by a fixed component, in the absence of the indicators derived from the administration plan. An administration plan and the derived performance indicators are to be approved only after the completion of the procedure of electing the members of the Board of Directors for a 4-year mandate according to the provisions of GEO 109/2011.

The capacity of the General Manager of SNN as a member in the Board of Directors ceased on 25.04.2017, with the appointment of the temporary directors, although the position of general manager was then held by Mrs. Daniela Lulache, based on a temporary 4-month mandate in period 01.05.2017 – 01.09.2017, a transition period that facilitated a stage and complete transfer of the activities to the new administrative structure. The current General Manager of SNN, appointed by the resolutions of the Board of Directors no. 132/24.08.2017 and 217/20.12.2017, Mr. Cosmin Ghita, for temporary 4-month mandates, is not a member of the Board of Directors.

The Members of the Board of Directors were appointed by the General Assembly of Shareholders, by applying the secret vote method. The candidates proposed by the Board of Directors were selected/evaluated in advance and recommend by the Nominating Committee of the Board of Directors.

The President of the Board is elected by the Board of Directors from among its members, in the person of Mr. Iulian-Robert Tudorache. The President of the Board is appointed for a period that may not exceed the duration of his/her mandate/term as administrator/director and can be dismissed any time by the Board of Directors.

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

## ANNUAL REPORT 2017

company. In case the directors/administrators were appointed from among the company's employees, the concluded employment contract shall legally terminate on the date she/he has accepted the mandate.

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

On 31.12.2017 the directors of the Company are as follows:

Name and surname	Age (years)	Qualification	Professional experience (years)	Position	Date of appointment	Date of mandate expiration
Iulian - Robert Tudorache	43 years	Attorney-at- law	17 years	President of the Board of Directors  (non-executive member)	26.04.2017  (provisional mandate according to the Resolution of AGOA 2/24.04.2017)	26.08.2017
					27.08.2017  (provisional mandate according to the Resolution of AGOA 5/24.08.2017)	27.12.2017
					28.12.2017  (provisional mandate according to the Resolution of	28.04.2018

# ANNUAL REPORT 2017

Name and surname	Age (years)	Qualification	Professional experience (years)	Position	Date of appointment	Date of mandate expiration
					AGOA 10/20.12.2017)	
Cristian Gentea	55 years	Physician engineer	30 years	Non-executive member of the Board of Directors	26.04.2017  (provisional mandate according to the Resolution of AGOA 2/24.04.2017)	26.08.2017
					27.08.2017  (provisional mandate according to the Resolution of AGOA 5/24.08.2017)	27.12.2017
					28.12.2017  (provisional mandate according to the Resolution of AGOA 10/20.12.2017)	28.04.2018
Elena Popescu	58 years	Nuclear static engineer	34 years	Non-executive member of the Board of Directors	11.07.2017  (provisional mandate according to the Resolution of AGOA 3/11.07.2017)	26.08.2017
					27.08.2017  (provisional mandate according to the Resolution of	27.12.2017



# ANNUAL REPORT 2017

Name and surname	Age (years)	Qualification	Professional experience (years)	Position	Date of appointment	Date of mandate expiration
					AGOA 5/24.08.2017)	
					28.12.2017  (provisonal mandate according to the Resolution of AGOA 10/20.12.2017)	28.04.2018
Cristian Dima	50 years	Economist	26 years	Non-executive independent member of the Board of Directors	28.12.2017  (provisonal mandate according to the Resolution of AGOA 10/20.12.2017)	28.04.2018
Mihai Daniel Anitei	48 years	Mechanical engineer	21 years	Non-executive independent member of the Board of Directors	28.12.2017  (provisonal mandate according to the Resolution of AGOA 10/20.12.2017)	28.04.2018
Dragos Ionut Banescu	46 years	Economist	22 years		27.10.2017  (provisonal mandate according to the Resolution of AGOA 167/27.10.2017)	27.12.2017
					28.12.2017  (provisonal mandate according to the Resolution of	28.04.2018

## ANNUAL REPORT 2017

Name and surname	Age (years)	Qualification	Professional experience (years)	Position	Date of appointment	Date of mandate expiration
					AGOA 10/20.12.2017)	
Mirel Marcu Alexadnru	48 years	Engineer	24 years	Non-executive independent member of the Board of Directors	27.08.2017  (provisonal mandate according to the Resolution of AGOA 5/24.08.2017)	27.12.2017
					28.12.2017  (provisonal mandate according to the Resolution of AGOA 10/20.12.2017)	28.04.2018

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.

### *Information regarding other professional commitments and obligations relatively permanent of the BoD members*

Surname	Company	Position	Period	Current position (Yes/No)
Iulian-Robert Tudorache	Ministry of Energy	State Secretary	December 2017 – Present	Yes
	Arges Bar	Attorney-at-law	2015 - January 2017	No

# ANNUAL REPORT 2017

Surname	Company	Position	Period	Current position (Yes/No)
	Ministry of Energy, Small and Medium Enterprises and Business Environment	Minister's Personal Adviser	January 2015 - November 2015	No
	Arges Bar	Attorney-at-law	2008 - 2015	No
Marcu Mirel Alexandru	S.C. Seven Hills S.R.L.	Production Manager	2009 – Present time	Yes
Cristian Gentea	Autonomous Administration of Technologies for Nuclear Energy	Chief Executive Officer	1987 - Present	Yes
	Autonomous Administration of Technologies for Nuclear Energy - Institute for Nuclear Research Pitesti	Nuclear Security Deputy Manager	June 2012 – Present time	No
Cristian Dima	Convert Leasing IFN S.A.	President of the Board of Directors	2008 - Present	Yes
	Ministry of Business Environment, Trade and Entrepreneurship	State Secretary	January 2017 - April 2017	No
	City Hall of Galati	Local adviser	June 2016 – January 2017	No
	Hospital of Obstetrics and Gynecology «Buna Vestire» of Galati	Member of the Board of Directors	June 2016 – January 2017	No
	Ministry of Environment, Waters and Forests	Adviser on matters of environment and aquaculture	May 2015 – November 2015	No

**ANNUAL REPORT 2017**

Surname	Company	Position	Period	Current position (Yes/No)
	City Hall of Galati	Local adviser	2012 - 2016	No
	Andreiana Juventus Foundation	Vice President - Managing Committee	2012 - January 2017	No
Elena Popescu	Ministry of Energy	General Manager - General Division of Energy Policies	September 2013 – Present	Yes
	Ministry of Energy	Adviser in the field of nuclear energy and European affairs	February 2013 – September 2013	No
	Energionuclear S.A.	Chairman of the Board of Directors	2013 - Present	Yes
	Permanent Agency of Romania to the European Union	Adviser for the nuclear field and international relations in energy	August 2007 – February 2012	No
Dragos Ionut Banescu	Ministry of Labor and Social Justice	General Registrar	April 2015 – Present	Yes
	Ministry of Labor, Family, Social Protection and Elderly	Deputy General Secretary	January 2014 - April 2015	No
	Ministry of Environment and Climate Changes	Deputy General Secretary	May 2012 – April 2014	No
	The Ministry of Public Finance – The National Agency of Fiscal Administration	Chief Executive Officer	March 2012 – May 2012	No

## ANNUAL REPORT 2017

Surname	Company	Position	Period	Current position (Yes/No)
	The National Integrity Agency	Member in the National Integrity Council	November 2011 - November 2014	No
Mihai Daniel Anitei	Azomures	Chief Executive Officer	June 2012 – Present time	Yes
	Agriculture Committee of Fertilizers Europe	President	September 2012 – Present	Yes
	Ameropa Grains	BoD Member	2016 – Present time	Yes
	Chimpex	BoD Member	2016 – Present time	Yes
	Oil Terminal	BoD Member	2016 – Present time	Yes

According to criteria provided at point A4 of the Corporate Governance Code of BVB, the BoD members with contractual relations with a shareholder owning over 10% of the vote rights, starting 01.01.2016, are: Iulian-Robert Tudorache (State Secretary within the Energy Ministry), Elena Popescu (General Manager, General Division of Energy Policies within the Ministry of Energy), Cristian Gentea (General Manager of the Administration of Technologies for Nuclear Energy, an entity 100% owned by the Romanian State, a majority shareholder of SNN) and Dragos Ionut Banescu (General Secretary within the Ministry of Labor and Social Justice)

For the directors whose mandate expired on 25.04.2017, in 2017, the activity of the Board of Directors was quarterly assessed, based on the performance criteria comprised in the Administration Plan and in the mandate contracts. The compliance degree of performance indicators is in the quarterly report of the BoD for Q1 of 2017. No other evaluations of the BoD activity have been subsequently performed.

On 31.12.2017, the members of the Board of Directors have no shares in SNN.

### *The main responsibilities of the Board of Directors*



## ANNUAL REPORT 2017

According to the Administration Plan of July 09, 2013, the main objectives of the BoD, appointed for a 4-year mandate, expired on 25.04.2017, were the following:

- Operation of the nuclear units in safe conditions and nuclear for the staff, population, environment and production assets;
- Conservation of the power production capacity above the present average level in industry;
- Accomplishment of the major investment objectives;
- Improvement of the indicators related to the financial performances of the company.

The Board of Directors appointed for temporary mandates starting with 26.04.2017 did not approve administration plans, and this was an obligation for the Boards of Directors appointed for 4 months according to the provisions of art. 30 of GEO 109/2011.

By the Resolution of the Board of Directors no. 41/22.03.2017, the Organization and Operation Regulation of the Board of Directors was updated, and includes the reference terms of the Board of Directors, according to the provisions of the Corporate Governance Code of BVB.

The Board of Directors has the following responsibilities that cannot be delegated to the General Manager:

- Approval of the Company's main activity and development directions;
- Establishment of the accounting and financial audit system and approval of the financial planning;
- Appointment and revocation of the Managers, as well as the establishment of their remuneration;
- Oversight of the activity of the General Manager and of the Managers;
- Preparation of the annual report, organization of the general meeting of shareholders and implementation of the GMS resolution;
- Filing the request for opening the insolvency procedure of the company, as per the Law 85/2006 regarding the insolvency procedure;
- Approval of changing the activity field of the company.

The Board of Directors has also the following responsibilities:

- Exercise control on the way the General Manager and the other Managers govern the Company;

## ANNUAL REPORT 2017

- Approves the revenues and expenses budget;
- Approves the management plan prepared by the General Manager and/or other Directors;
- Verifies if the activity of the company is compliant with the Law, the Articles of Incorporation and any relevant resolution of the General Meeting of Shareholders;
- Presents to the General Meeting of Shareholders an annual activity report;
- Represents the company in relationship with the General Managers and the appointed Managers;
- Checks and approves the quarterly, half-year and annual financial statements of the Company;
- Verifies and approves the Report of the General Manager and the reports of the Managers;
- Proposes to the General Meeting of Shareholders the appointment and the revocation of the financial auditor, as well as the minimum duration of the audit contract;
- Approves the mandate contracts of the General Manager and of the appointed Managers thus establishing the organization of the activity of the managers;
- Approves the empowered representatives to negotiate the collection work agreement with the unions and/or with the representatives of the employees as well as their negotiation mandate;
- Approves the Company's collective work agreement;
- Approves the Organization and Operation Regulations of the BoD;
- Approves the activity programs (production, research– development, technological engineering, investment, etc.);
- Approves the energy transactions strategy of the Company;
- Approves any transaction of the company with any of the companies with which it has closed relations whose value is equal to or more than 5% of the net assets of the company (according to the latest financial report) following a mandatory opinion of the Audit Committee of the Board and disclosed to shareholders and potential investors in the right way, insofar as such transactions fall into the category of events which are subjected to reporting requirements;
- Approves the conclusion of any contract/document which raises legal obligations for the Company (acts of acquisition, sell, exchange and pledge as guarantee non-current assets of the Company), the value of which does not exceed, separately and cumulated, during one financial year, 20% of the total non-current assets of the Company less receivables, in compliance with the competence limits provided in the Annexes to the Articles of Incorporation;
- Approves the renting of tangible assets, for a period greater than a year, with an individual and cumulated value for the same contractor or entity involved with the



#### ANNUAL REPORT 2017

company, which does not exceed 20% of the total value of non-current assets, less receivables at the date of the legal document, as well as the associations for periods greater than 1 year, which do not exceed the same value;

- Approves the mandate of Nuclearelectrica's representatives in the General Meeting of Shareholders of S.C. Energonuclear S.A. for the decisions which fall under the competence of S.C. Energonuclear S.A. with the exception of those for which a resolution of the Company's General Meeting of Shareholders is necessary, in compliance with the provisions of the Articles of Incorporation.

The Board of Directors is responsible for the endorsement/ approval of the contracts, credits and different operations at the level of the Company, in compliance with the competence limits provided by the Annexes to the Articles of Incorporation.

In 2017, the SNN BoD was convened 51 times in order to take the necessary decisions for the company management 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, 24 meetings took place with the members' attendance, 22 by electronic vote and 5 by teleconference.

Attendance of the members of the Board of Directors at the 24 attendance meetings, depending on the members' term, including the revocation or resignation prior to the expiry of the temporary mandate:

BoD members whose mandate expired on 25.04.2017	Number of sessions
Sandulescu Alexandru	5
Alexe Alexandru	5
Lulache Daniela	3
Radu Carmen	4
Popescu Dan	4



## ANNUAL REPORT 2017

Tcaciuc Sebastian Gabriel	13
Stanescu Bogdan	5

BoD members temporarily appointed in 2017	Number of meetings
Iulian-Robert Tudorache	18
Cristian Gentea	16
Ionut Misa	5
Cristian Romulus Anton	16
Eva Andreas	4
Florin Tatar	5
Roxana Cezarina Banica	1
Elena Popescu	12
Dragos Ionut Banescu	5
Mirel Marcu Alexandru	9

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.

The BoD secretary on 31.12.2017 is Mrs. Saida Ismail, PR Specialist within SNN.

### *Remuneration of the Members of the Board of Directors*

According to the provisions of the GEO no. 109/2011 with subsequent amendments and additions regarding corporate governance of public companies, the remuneration policy and criteria for the administrators and managers in a unitary system are made public on the internet page of SNN, under the section "Public interest information".

The directors and managers who ran the Company in period 1.01.2017 – 25.04.2017, within the 4-year mandate exercised in period 2013-2017, received for the performed activities a fixed monthly compensation and a variable compensation. The variable allowance was paid depending on the achievement of the indicators and performance criteria established in administration/mandate agreements, as they are taken from the administration/management plan.

The directors and managers with mandate contracts appointed for temporary mandates in 26.04.2017 – 31.12.2017 only benefitted from the fixed component of the compensation.

## ANNUAL REPORT 2017

According to the provisions of Art. 37 of the GEO no. 109/2011 with subsequent amendments and additions, the fixed allowance of the non-executive and BoD members cannot exceed twice the average on the last 12 months of the average gross wage for the developed activity, according to the main object of activity of the Company, at the class level, according to the classification of activities from the national economy, communicated by the National Statistics Institute prior to the appointment. The fixed allowance of the executive members of the BoD cannot exceed 6 times the average of the last 12 months of the monthly gross average wage for the activity developed according to the main object of activity registered by the Company, at the class level according to the classification of activities from the national economy, communicated by the National Statistics Institute prior to the appointment.

The fixed and variable allowance for the BoD members is approved by the SNN GMS. The general meetings of the manager's allowances (manager according to Art. 143 of the Law no. 31/1990) are approved by the GMS; based on such general limits, the BoD establishes the amount of the managers' allowance. The fixed compensation of the managers with mandate contracts cannot exceed 6 times the average gross salary for the activity developed according to the main object of activity registered by the Company, at the class level according to the classification of activities from the national economy, communicated by the National Statistics Institute prior to the appointment.

Detailed information regarding the administrators' and managers' remuneration for 2017 may be found in the Report of the Nomination and Allowance Committee, attached to the hereby Report.

### **10.3.2. THE EXECUTIVE MANAGEMENT**

The Board of Directors delegates the management of the company to one or more Directors, naming one of them CEO. The CEO represents the company in relation with third parties and in the court of law. The CEO is responsible for taking all the necessary measures related to the governing of the company, within the limits of the company's scope and in compliance with the competences established by Law or by the Articles of Incorporation for the Board of Directors and the General Meeting of Shareholders. The Board of Directors can delegate one or more responsibilities mentioned above (which can be delegated) to the CEO.

*The CEO of SNN, has the following responsibilities in compliance with the Articles of Incorporation:*



## ANNUAL REPORT 2017

- ❖ Manages and coordinates the activity of the company;
- ❖ Fulfills the resolutions of the General Meetings of Shareholders and the decisions of the Board of Directors, adopted in compliance with the competences reserved;
- ❖ Applies the strategy and policy of the Company;
- ❖ Selects, hires, promotes and dismisses the employees of the Company;
- ❖ Appoints, suspends and revokes the managers of the subsidiaries, establishing their remuneration;
- ❖ Negotiates and concludes, under the conditions of the law, individual work agreements;
- ❖ Concludes legal documents on behalf of the company, for the acquisition, sale, renting and exchange or pledging as guarantee the assets of the company, which don't fall under the competence of the General Meeting of Shareholders or of the Board of Directors;
- ❖ Concludes any binding documents which don't fall under the competence of General Meeting of Shareholders or of the Board of Directors, within the competence limits provided in the Annexes to the Articles of Incorporation;
- ❖ Approves the investment projects, in compliance with the limits provided in the Annex to the Articles of Incorporation;
- ❖ Prepares and subjects for the endorsement of the Board of Directors the financial statements as well as the proposal regarding the distribution of the profit resulted from the balance, which is intended to be presented to the General Meeting of Shareholders;
- ❖ Prepares and subjects to the endorsement of the Board of Directors the budget project of the Company, which will be subjected to the approval of the General Meeting of Shareholders;
- ❖ Subjects to the endorsement of the Board of Directors the materials which will be subjected to the approval of the General Meeting of Shareholders;



#### ANNUAL REPORT 2017

- ❖ Prepares together with the other managers and subjects for the endorsement/approval of the Board of Directors the activity programs (production, research-development, technological engineering, investments, etc.);
- ❖ Establishes the responsibilities of the Company's staff;
- ❖ Approves the collections and payments, as per the legal competences and provisions of the Articles of Incorporation;
- ❖ Empowers Managers or any other person to exercise powers from his field of competence;
- ❖ Approves the delegations of competence for the Managers of the Company and of the subsidiaries, in order to carry out the activities of the company;
- ❖ Approves the competences and the responsibilities of the Company's departments;
- ❖ Approves the organizational chart of the Company and the number of positions, the formation of operational and production compartments, as well as the Organization and Operation Rules;
- ❖ Approves the environmental protection and occupational safety policies, in compliance with the law;
- ❖ Approves legal documents and rules which regulate the activity of the company;
- ❖ Establishes the marketing tactics and strategy;
- ❖ Fulfills any other responsibility provided by the legislation, the Articles of Incorporation, the resolutions of the Board of Directors and of the General Meeting of Shareholders;
- ❖ Solves any other matter that the Board of Directors commissions to him.

*The position of Manager of the CNE Cernavoda Branch is filled with individual employment contract, following a Resolution of the Board of Directors 51/07.04.2016 and is filled by Mr. Marian Serban, who is also the Chief Nuclear Officer.*

## ANNUAL REPORT 2017

*The CFO* was appointed by the Board of Directors on 01.02.2014. The Board of Directors delegated to the CFO the management, organization, coordination of the economic activity of the Company including the accounting and financial functions, the preventive financial control, reporting and budget, asset administration and IT service. In order to fulfill his mandate, the CFO unfolds all the necessary actions for the management, organization and coordination of the economic activity of the Company together with the other managers. The CFO is subordinated to the Board of Directors and to the CEO and is responsible for fulfilling his duties towards them.

Following the Resolution of the Board of Directors no. 218/20.12.2017, Mr. Adrian Gabriel Dumitriu, Economic Manager of CNE Cernavoda, was appointed for a temporary period of 4 months starting with 03.01.2018, upon recommendation of the Nomination and Remuneration Committee, Financial Manager of SNN, after notifying the termination of the mandate contract related to the position of Financial Manager of Mr. Mihai Darie, starting with 03.01.2018.

*The Deputy General Managers* were appointed by the Board of Directors on 13.12.2017, and the mandate started on 03.01.2018 for a temporary term of 4 months, according to the provisions of art. 20 par. 1 of the Articles of Incorporation of SNN, art. 35 par. 1 and art. 64 index 2 par. 1 of GEO no. 109/2011 as further amended and supplemented and the provisions of art. 143 par. 1 and 4 of Law 31/1990 on companies. The resolution of the Board of Directors was taken upon the recommendation of the Consultative Committee of Nomination and Remuneration within the Board of Directors, a recommendation made based on the necessity of taking measures within SNN for achieving the objectives included in the Strategy for the long-term development of the company (2015-2025), the simultaneous implementation of medium-term and long-term projects (modernization of Unit 1 CNE Cernavoda, Project for Units 3 and 4) and for a better corporate integration of the current activities of the company in the general management process. Thus, Mr. Dan Laurentiu Tudor, Deputy General Manager, is responsible for coordinating the activities regarding public procurements, corporate business and strategies and human resource policies on company level. Mr. Toni Viorel-Lary, Deputy General Manager, is responsible for coordinating the activities related to the development of investment projects and activities of obtaining revenues related to energy transactions.

The Financial Manager and the two Deputy General Managers are subordinated to the General Manager and to the Board of Directors.

## *Executive management*

**ANNUAL REPORT 2017**

Name and Surname	Position	Start date (since 2017)	(since 2016) (since 2017)
Daniela Lulache	Chief Executive Officer (mandate contract)	01.01.2017	30.04.2017
Daniela Lulache	Chief Executive Officer (temporary mandate)	01.05.2017	01.09.2017
Mihai Darie	CFO (mandate contract)	01.01.2017	December 31, 2017
Cosmin Ghita	Chief Executive Officer (mandate contract for a temporary term of 4 months)	02.09.2017	02.01.2018
Marian Serban	Branch Manager CNE Cernavoda (employment contract)	01.01.2017	December 31, 2017
Florin Gheba	Branch Manager FCN Pitesti (employment contract)	01.01.2017	December 31, 2017
Dan Laurentiu Tudor	Deputy General Manager (mandate contract for a temporary term of 4 months)	03.01.2018	03.05.2018
Toni Viorel - Lary	Deputy General Manager (mandate contract for a temporary term of 4 months)	03.01.2018	03.05.2018

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.

On 31.12.2017, the members of the executive management have no shares in SNN.

At the current date, the Company does not poses knowledge regarding the existence of litigations or administrative procedures against the members of the Board of Directors and/or managers, related to their activity within Nuclearelectrica or to their capacity to fulfil their duties within the Company.

**10.4..CONSULTATIVE COMMITTEES**

As per the Articles of Incorporation and in compliance with GEO 109/2011, the Board of Directors established 4 advisory committees, made up of at least 2 board members of the BoD.

***The Audit Committee for Nomination and Remuneration***



## ANNUAL REPORT 2017

This committee was established according to Art. 34 of the GEO no. 109/2011 regarding corporate governance of the public companies, by Decision no. 7 of the BoD from 26.04.2013.

### *The Audit Advisory Committee*

This committee was established according to Art. 34 of the GEO no. 109/2011 regarding corporate governance of the public companies, by Decision no. 8 of the BoD from 30.04.2013.

### *The Advisory Committee for Nuclear Safety*

This committee was established according to Art. 34 of the GEO no. 109/2011 regarding corporate governance of the public companies, by Decision no. 27 of the BoD from 26.08.2013.

### *The Advisory Committee for strategy, development and large investment projects*

This committee was established according to Art. 34 of the GEO no. 109/2011 regarding corporate governance of the public companies, by Decision no. 27 of the BoD from 26.08.2013.

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

The Presidents of the Advisory Committees are the following administrators:

The Audit Committee for Nomination and Remuneration	Iulian-Robert Tudorache
The Audit Advisory Committee	Dragos Ionut Banescu
The Advisory Committee for Nuclear Safety	Cristian Gentea

## ANNUAL REPORT 2017

Advisory Committee for strategy, development and Large Investment Projects	Elena Popescu
--	---------------

### *The Audit Advisory Committee*

The audit committee is formed of 3 members appointed from among the members of the Board of directors. Starting with 2017, the Consultative Audit Committee was modified, and the most recent one, according to Resolution no. 146/22.09.2017, had the following members: Gabriel Sebastian Tcaciuc (member-Chairman), Mirel Marcu Alexandru (member), Cristian Romulus Anton (member); all the members have specialized training.

The role of the Audit committee is to assist the BoD in performing its duties related to internal audit and to offer council regarding the strategy and policy of the Company related to the internal and external, control system, evaluation of the conflict of interests, as well as the control over the management of the significant risks.

From the functional point of view, the Advisory Audit Committee reports directly to the BoD. Within SNN, there is an Internal Audit Department responsible for managing the internal audit activity of the company, reporting to the BoD, from the functional point of view and to the CEO, from the management point of view.

The main attributions of the Advisory Audit Committee include analysis functions, monitoring, supervision and facility, as follows:

- ❖ Approving the multi-annual internal audit plan as well as the normative documents drafted by the Internal Audit Department;
- ❖ Examination, on a regular basis, the efficiency of the internal control and risk management system;
- ❖ Monitoring the application of the legal and internal audit standards, maintaining the authority, independence and impartiality of the internal auditors;
- ❖ Monitors the Company's compliance with the legal provisions, Articles of Incorporation and internal applicable normative documents;
- ❖ Analyzes and approves the activity reports of the Internal Audit Department, transactions with the affiliated parties;





## ANNUAL REPORT 2017

- ❖ Monitors the correctness and credibility of the financial information provided to the Company's leadership and external users;
- ❖ Supervises the activity of internal auditors and financial auditors;
- ❖ Approves or proposes the approval for the supervision authorities or shareholders regarding the appointment, remuneration and revoking the financial auditor;
- ❖ Makes sure the executive authorities take the necessary remedy measures to solve the identified deficiencies;
- ❖ Drafting and forwarding reports at the request of the BoD.

In 2017, the Advisory Audit Committee assembled in 8 meetings where recommendations were drafted for the BoD of SNN regarding themes from its attributions, as follows:

- ❖ Notification of:
  - The report regarding the activity of the internal audit for 2016;
  - Internal audit plan for 2017 and multiannual audit plan for 2017-2019;
- ❖ Submission for approval of the following materials by the BoD:
  - CEO, CNE Cernavoda Subsidiary Manager and CFO reports for the end of the year, as well as quarterly;
  - Quarterly reports of SNN BoD for Q IV of 2016 and Q I, Q I and Q III of the 2017 plan drafted based on the GEO no. 109/2011 regarding corporate governance of public companies;
  - Review report of the independent auditor on the Interim Individual Interim Financial Statements on the date and for the 6 months period ended on June 30th, 2017;
  - Independent report for limited insurance on the information included in the current reports drafted by the Company according to the provisions of Art. 82 of the Law no. 24/2017 and of the CNVM Regulation no. 1/2006;
  - Annual report regarding the activity of the internal audit developed at the SNN level;
  - Interim Individual Interim Financial Statements not audited for the first 3 months of 2017 and every 9 months;
  - Interim Individual Interim Financial Statements and Consolidated for the 6 months period ended on June 30th, 2017.

## ANNUAL REPORT 2017

❖ Submission for the approval of the BoD of the following documents for the GMS approval:

- The Individual Annual Financial and Consolidated Statements at the end of 2016, drafted according to the International Standards of Financial Reporting (IFRS – UE), based on the reports of the independent auditor and annual report of the administrators for 2016;
- Annual report of Directors;
- Income and Costs Budget for 2017;
- Report on the administration activity for the 1st quarter of 2017, drafted according to the legal provisions;
- Half-year report on the administration activity, drafted according to the legal provisions;
- Quarterly half-year report on the administration activity, drafted according to the legal provisions.

Regarding the management of conflicts of interests, each member of the BoD ensures the avoidance of a direct or indirect conflict of interests with the Company, and in case of occurrence of such conflict it refrains from debates and vote on the respective issues, according to the current legal provisions.

In order to provide the correctness, transactions with the parties involved, the BoD members call on the following criteria, but without a limitation:

- ❖ Keeping the competency of the BoD or GMS, as the case may be, to approve the most important transactions (according to the annex to the Articles of Incorporation regarding the competence limits);
- ❖ Requesting a previous opinion on the most important transactions from the part of the internal control structures;
- ❖ Providing negotiations, regarding such transactions, to one or many independent administrators or administrators without any connections with the respective involved parties;
- ❖ Appeal to independent experts.

The transactions concluded in 2017 with affiliated parties and reported to the authorities of the capital market of Romania and to the SNN shareholders, in virtue of the provisions of

## ANNUAL REPORT 2017

art. 225 of Law no. 297/2004 and art. 82 of Law no. 24/2017 did not create problems regarding potential conflicts of interests with the directors and managers of SNN.

In 2017 did not occur transactions with a value equal or exceeding 5% of the net assets of the Company (according to the last financial report).

The planning of internal audit activities is performed following a large process of risk evaluation (e.g.: discussions with the heads of the departments, the result of activities of the other monitoring departments, reports of the external control organisms of the Company, results of the previous audit reports). The Advisory Audit Committee evaluated the internal control system, based on the questionnaire regarding the evaluation of the implementing stage of the internal/management control implementing standards, consisting in the compliance in the internal management control activity with the standards provided in the Order no. 400/2015.

More information regarding the internal audit is found in subchapter 10.8. *Internal audit*.

### *The Nuclear Safety Advisory Committee*

The Nuclear Safety Advisory Committee shall provide the Board of Administration with independent assistance and/or evaluation in the field of nuclear safety and environmental protection, drawing up written recommendations in this respect.

The main duty of the advisory committee for nuclear safety is to ensure assistance and/or independent evaluation in fields like:

- ❖ Company's strategic options for nuclear security, regarding the existent situations and the applicable regulation frame for the operating activities of CNE Cernavoda;
- ❖ Conclusions drawn from the review of certain design studies and their impact on systems, structures and components with critical functions of nuclear security;
- ❖ Fundamental decisions regarding nuclear security, as well as regarding radioprotection, considered at the Company level and its two subsidiaries;
- ❖ Frame and main criteria to be adopted for nuclear security and for the management and quality insurance system;
- ❖ Conclusions of impact studies regarding all types of emissions in the environment;
- ❖ Nuclear security criteria, public health and environment protection, applied in the relations with the sub-contractors and providers;
- ❖ Drafting and applying preparation programs of the nuclear security culture for the Company's personnel;

#### ANNUAL REPORT 2017

- ❖ General policy and regulations regarding personnel and competence requirements in operating the Company's assets;
- ❖ Inspection of structures and components with critical security function;
- ❖ Independent control processes in nuclear security issues and radioprotection, regarding the Company's specific activities;
- ❖ Certification and licensing process;
- ❖ Analysis of the events/incidents reports of operations with a potential impact on nuclear security or personnel radioprotection;
- ❖ Analysis of any report regarding nuclear security, drafted at the Company's level;
- ❖ Any issue for which the BoD considers necessary to be consulted the Advisory Committee for Nuclear Security.

The Advisory Committee for Nuclear Security was assembled 3 times during 2017. During the three meetings organized during 2017 were discussed and submitted to the approval of the BoD, the reports regarding the status of nuclear security within SNN for Q IV for 2016 and Qs I and II for 2017.

#### *Advisory Committee for strategy, development and Large Investment Projects*

The Advisory Committee for strategy, development and large investment projects had, at the end of 2017, the following composition: Elena Popescu – President, Cristian Gentea, Mirel Marcu Alexandru, Cristian Romulus Anton and Sebastian Tcaciuc as members. As per OGMS resolution no. 10/20.12.2017, Sebastian Tcaciuc and Cristian Romulus Anton were replaced by Cristian Dima and Mihai Anitei.

The Advisory Committee for strategy, development and large investment projects carries out analysis and makes recommendations to the Board of Directors regarding:

- ❖ The development strategy, the refurbishment, upgrade, economic-financial restructuring of the Company as well as the main development directions, strategic objectives and methods to implement them
- ❖ The approval and implementation by the Board of Directors of the large investment programs (projects with an estimated value which exceeds 5 million Euro) following the analysis of the specific documents.

In 2017, the Advisory Committee for strategy, development and large investment projects made recommendations to the BoD on the following topics:

- ❖ Recommendation for the BoD to endorse, before submitting to the approval of EGMS of the “continuation of the negotiations on the Investment Documents under the same conditions as in the Memorandum of Understanding regarding the development, construction, operation and decommissioning of Cernavoda NPP Units 3 and 4 for an additional 6 months since the date of the institutional and

## ANNUAL REPORT 2017

- corporate approvals, with the application of all the other provisions of the MoU, including the possibility of each party to terminate the MoU without any compensation to the other party, by means of a simple notification, in case of not reaching a decision on the Investment Documents and to the extent to which the delay was not caused by the respective Party” (EGMS resolution no. 6/24.08.2017)
- ❖ Recommendation for the BoD to endorse before submitting to the approval of the EGMS of the initiation of the first phase of the refurbishment Strategy for Cernavoda NPP Unit 1” (EGMS resolution no. 8/28.09.2017)
  - ❖ Recommendation for the BoD to endorse before submitting to the approval of the EGMS the Long Term development strategy for the Intermediate Spent Fuel Storage Facility (DICA) in stry state and the authorization in view of extending the life time of Units 1 and 2, in correlation with the observations of CNCAN and the Ministry of Environemnt and Climate Change, revised and (ii) the amendment of the DICA investment project (EGMS resolution 8/28.09.2017).

Analyzing the activity of the Advisory Committee for strategy, development and large investment projects, we consider that it permitted the chrystalization of an unitary and structured approach regarding the strategic development directions and the annual planning of the investment budget.

### ***10.5.SHAREHOLDERS RIGHTS***

All holders of financial instruments issued by SNN of the same type and title class receive an equal treatment, and the company is making permanent efforts to achieve an effective, active and transparent communication in order to exercise the rights in an equitable manner.

All SNN holders are treated equally. All the issued shares offer equal rights to their holders; any change in the rights conferred by them will be subject to approval by the directly affected shareholders in special meetings.

SNN makes all efforts to facilitate the participation of shareholders at the general meetings of shareholders, the dialogue between shareholders and members of the Management Board and/or management, as well as the full exercise of their rights. The participation of shareholders at the General Shareholders Meetings is strongly encouraged, and for the shareholders who are unable to attend the meeting, the opportunity of voting in the absence is offered-based on special mandate, by mail or by special or general power of attorney.

The company has created a special section called Investor Relationships, on its own website, where relevant information on the procedures regarding the access and the participation at the General Meeting of Shareholders (GMS), GMS convocation,



## ANNUAL REPORT 2017

supplemented agenda of the GMS, MB responses to shareholders' questions, current reports, financial statements of the Company, the exercise of voting rights in GMS, GMS agenda materials, special mandate models, financial calendar, corporate governance etc. of the company is constantly updated and accessible, thus contributing to transparency and equitable information for all persons interested.

At the same time, SNN has established a specialized organizational structure for the management of the capital market activity, respectively the Department of Communication and Investor Relationships – a structure whose work will be dedicated to the relationship with the investors and shareholders. The department's staff is permanently trained/educated/professional formed on issues related to the company's relationship with its shareholders, the principles of corporate governance, management and customer relationship.

The main shareholders' rights regarding the General Meeting of shareholders are:

*(a) The right to a minimum period of notice:*

The Company's Shareholders are informed about an upcoming meeting of shareholders by convocation published in the Official Gazette and in a newspaper of national circulation at least 30 days before the meeting; also, the convocation is published on the website of the Company, in the Investor Relationships section and it is transmitted to the Financial Supervision Authority and the Bucharest Stock Exchange in the form of a current report.

*(b) The right of access to information:*

SNN publishes the documents and information required on its website to ensure that all shareholders exercise their rights in an informed manner.

*(c) The right to supplement the agenda of the meeting:*

SNN shareholders representing individuals or together with other shareholders at least 5% of the share capital may request the addition of supplementary items to the agenda within the limits and in accordance with the applicable legislation.

*(d) The right to participate at the meeting*

SNN shareholders registered in the list of shareholders on the reference received from the Central Depository shall be entitled to attend in person or by representative the General Meetings of Shareholders;

*(e) Voting rights:*

## ANNUAL REPORT 2017

The share capital of the Company is represented by ordinary shares conferring a right to vote for each share registered in the name of the shareholder at the reference date;

*(f) The right to ask questions:*

Any shareholder of the Company may submit written questions concerning the items on the agenda of the General Meeting of Shareholders and is entitled to receive responses from SNN.

The shareholders have the right to participate effectively and to vote in the GMS and to be informed of the rules, including the voting procedures that govern the GMS. Each share confers one vote, one dividend. There are no preferred shares without voting rights or shares conferring the right to more than one vote.

## **10.6. TRANSPARENCY, FINANCIAL REPORTING, INTERNAL CONTROL AND RISK MANAGEMENT**

### ***Transparency***

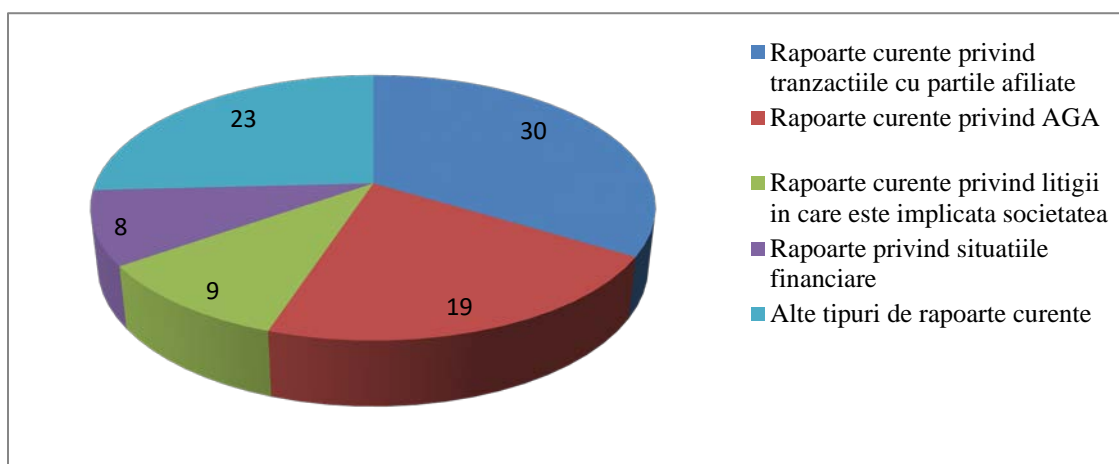
Being a company admitted to trading, SNN acts constantly according to the information requirements regulated by the capital market rules, by conducting periodic and continue reports on important events concerning the company, including, but not limited to, financial state, performance, ownership and leadership. The Company will prepare and disseminate periodic and continuous relevant information, in accordance with the International Financial Reporting Standards (IFRS). Information is disseminated both in Romanian and English. The company will hold at least three times a year, meetings with financial analysts, brokers, market specialists and investors, at disseminating annual financial statements and or half-yearly investment decision or relevant materials according to specific interests of participants on the capital market (teleconferences and face to face meetings). The aim is to ensure total transparency by communication in accordance to the law and proactively, in order to provide information with a high degree of accuracy and in a timely manner necessary to maintain and develop a relationship of mutual trust.

To make the information process more efficient and accessible for investors, SNN created on its website ([www.nuclearelectrica.ro](http://www.nuclearelectrica.ro)) a special section (Investor Relationships) where any investor can easily access information about: (i) strategy of the Company, (ii) news, information and events, (iii) corporate governance, (iv) the rights of shareholders, (v) reports, (vi) dividend payment, (vii) financial statements. Moreover, SNN has set strict internal rules and procedures and has a dedicated investor relations department. The

## ANNUAL REPORT 2017

company develops and implements an efficient and transparent policy in its relationship with the investors.

During the year 2017, SNN issued 89 current reports, a part of which represents the compliance with the legal provisions, and the other part representing events that have an impact on the share price, SNN considering that a proactive and open approach to the shareholders and investors is optimal:



### *Financial reporting, internal inspection and risk management*

SNN transmits to BSE, no later than 120 days after the end of the reporting period, the annual report in accordance with regulatory matters, issued by the Financial Supervisory Authority (FSA), including all documents stipulated in the FSA regulations. The financial statements are prepared in accordance with the International Financial Reporting Standards (IFRS) as they are approved by the European Union, starting with the year 2013.

SNN transmits to BSE, no later than 45 days after the end of the reporting period, the quarterly report prepared in accordance with regulatory matters, issued by the FSA, and the half-yearly financial statements are prepared in accordance to the law.

SNN transmits to BSE, no later than 45 days after the end of the reporting period, the Quarterly Report for the first and the third quarter, prepared in accordance with ASF regulations, comprising both reporting documents as stipulated in the ASF regulations and also quarterly interim financial statements, prepared in accordance with applicable regulations.



## ANNUAL REPORT 2017

The Audit Advisory Committee supports the Management Board members by regularly examining the efficiency of financial reporting, of internal control and risk management system adopted by the company.

### *Internal inspection*

The Financial and Management Control within SNN is organized and implemented in compliance with the provisions of the Government Emergency Ordinance of no. 94/2011 regarding the organization and operation of the economic-financial audit, approved by Law no. 107/ 2012 and HG no. 1151/2012 on the approval of the detailed rules related to the organization and exercise of the financial control of the management. During the year 2017 all the objectives related to financial and management control were achieved, namely the reaching of yearly target and performance indicators.

The financial and managerial control bodies of the SNN fully achieved the activity program approved for 2017, namely 24 activities of financial and management control, covering all the three subunits (the Central Headquarters, CNE Cernavodă Branch and FCN Pitești Branch).

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

- ❖ Preventive inspection on substantiating the project of the revenue and expense budget of SNN;
- ❖ Compliance with the legal provisions regarding the employment, rights, obligations and liabilities of administrators;
- ❖ Compliance with the legal norms and internal procedures on making salary payments and other obligations to the employees, and withholding amounts from salaries from CNE branch salaries;
- ❖ Checking the compliance with the legal provisions and/or the internal regulations regarding collections and payments in lei and foreign currencies, in cash or by bank transfer;
- ❖ Complying with the legal provisions and/or internal regulations regarding the implementation of specific economic and financial indicators of the activity, on SNN SA level;
- ❖ Complying with the legal provisions in the implementation of the revenue and expense budget of SNN and of the subunits from its structure;
- ❖ Complying with the legal provisions and internal regulations on drafting, circulating, keeping and archiving primary, accounting and technical-operational documents;

#### ANNUAL REPORT 2017

- ❖ Compliance with the legal provisions and/or the internal regulations in performing procurements; checking the manner in which the primary, accounting and technical-operational documents are complied with;
- ❖ Checking the general organization and implementation of the patrimony;
- ❖ Preliminary analysis of the project stage and implementation - tritium removal installation CNE Cernavoda;
- ❖ Analysis of the activity of managing radioactive waste performed based on contract no. 208/18.03.2015 - “Services of managing the radioactive waste of CNE Cernavoda”;
- ❖ Monitoring the implementation of the measures set following the verifications performed by the administration financial control, requesting plans of action, checking the compliance with the set deadlines and the accuracy of the submitted reports.

The deficiencies found through the control files approved by the board of the company represent non-compliance cases, deviations from the legal acts or the internal procedures into force, for all of which 60 corrective measures were established, deadlines and responsibilities to find solutions or responsibilities or to extend and enhance the analyses and the verifications of the subcompany/board of directors’ management.

Also in 2017, 10 analysis and proposals were drafted and approved, outside the control program, drafted according to the provisions of the internal procedures regarding the assistance and guidance activities that serve to the managers and the interests of SNN by optimization and prevention measures or detecting dysfunctions in order to substantiate decisions, assimilating best practices, implementing actions for increasing efficiency and improve performance.

#### *Organization and the exercise of the internal/managerial control*

In the first quarter of 2017, by the resolution of the General Manager no. 29/03.02.2017, the company created the function of self-assessment and analyzing the implementation degree of the management internal inspection standards as of December 31, 2017, namely:

- a. Filling in, based on the principle of truth, of the form “Questionnaire for assessing the implementation stage of the internal/management inspection standards as of December 31, 2015” by the managers of the departments comprised in the organizational chart SNN Executive;
- b. Drafting the reports on the internal/management inspection system on the level of branches CNE Cernavoda and FCN Pitesti, by assuming the responsibilities of managing subunits, by annexing the synthetic situation of the assessment results;

## ANNUAL REPORT 2017

c. Centralizing and drafting the Consolidated Synthetic Report and the Report on the internal/management inspection system, showing that on the level of SN Nuclearelectrica SA, out of the 16 standards, 11 are implemented, and 5 standards are partially implemented. All the standards have been implemented.

For 2017, based on the development program of the internal/management inspection system and the measures comprised in the integrity plan, the company will continue the process of developing the internal inspection system in SNN, based on the risk analysis and internal inspection standards, including by assimilating the guidelines comprised in the Best practice guide of OCDE regarding internal inspection, ethics and compliance.

❖ In 2017, in order to ensure the development the structure of the management inspection system, the compliance with the provisions of Order 400/2015 (as further amended and supplemented), Resolution no. 583/2016 for the approval of the National anticorruption strategy in 2016-2020, performance indicator sets, the risks associated to the objectives and the measures and the verification sources, the inventory of the institution transparency measures and corruption prevention, assessment indicators, and the standards for the publication of public-interest information, and the corporate governance requirements, including the WANO recommendations regarding the necessity of developing a corporate oversight process, the stages that are necessary for ensuring the organizational framework are implemented, namely:

- the organization and operation organization of National Company “Nuclearelectrica”- S.A was reviewed by integrating and updating the responsibilities and attributions of the Monitoring board and the Risk management team.
- Risk management is coordinated in a centralized manner, and information collection, consolidating the input data for the Risk Register are performed by the Risk Management Service.
- The development program of SIMC (standards for internal and managerial control) for 2017 was drafted and approved (according to Art. 2 of section 2 of OSGG 400/2015).
- The organization and operation regulation provided the development of the management system based on objectives; by creating such effective relation of reports on a functional line, the centralized functional coordination, contribution to a better alignment of the strategy performance and development of the management system based on objectives and short-term planning techniques (annual).
- drafting and approving the integrity plan for 2017, developed based on risk analysis and internal management inspection standards, by assimilating the guidelines comprised in the Best Practice Guide of OCDE regarding internal inspection, ethics and compliance.



## **ANNUAL REPORT 2017**

❖ The following aspects were identified at the beginning of 2017: 111 procedural activities, out of which 90 were documented in procedures, and 21 new procedures will be issued in 2017. Out of these, 6 were issued, 3 are pending approval; 12 were not drafted. In excess of the planned ones, 4 new procedures were drafted.

Out of the 90 issued procedures, 32 procedures that needed to be updated were identified at the beginning of 2017. Out of these, 16 were updated and 1 is pending approval.

For the 15 outstanding procedures, new update deadlines were set in 2018.

❖ The inventory of the procedural activities and the procedure updates represent permanent activities, being a continuous process in which every functional SNN structure is involved.

❖ Based on the results of the self-assessment performed in Q1 of 2017, on December 31, 2016, the internal/management inspection system of SN Nuclearelectrica SA is partial according to the standards comprised in the Internal/management inspection code; out of the 16 standards, 11 were implemented, and 5 standards are partially implemented. All the standards have been implemented.

### ***Risk management***

The activity regarding the risk management including the company policy and objectives in this field are presented in the previous chapters of the Annual Report.

## ***10.7.CONFLICT OF INTEREST AND TRANSACTIONS WITH RELATED PARTIES***

The provisions on managing conflicts of interests are included in the Operation and organization regulation of the Board of Directors.

The Management Board members will make decisions in the sole interest of the Company and will not take part in any deliberation or decision which creates conflict between their personal interests and those of the Company.

Each member of the Management Board ensures the avoidance of a direct or indirect conflict of interest with the Company, and in the event of such a conflict, will abstain from deliberations and voting on such matters in accordance with the legal provisions in force.

The members of the Board of Directors submit to the Board of Directors of SNN information regarding any relations with a shareholder that directly or indirectly owns

## ANNUAL REPORT 2017

shares representing over 5% of all voting rights. This obligation refers to any relation that may affect the member's position with regard to issues determined by the Council.

In order to ensure the procedural fairness of transactions with implied parties, the members of the Management Board use the following criteria, but they do not limit to them:

- ❖ Maintaining the competence of BoD or GAS, as the case may be, to improve the most important transactions. In case of transactions with affiliated parties, SNN will comply with the provisions of art. 52 par. (5) GEO 109/2011 as further amended and supplemented;
- ❖ Any transaction with a value equal or higher than 5% of the net assets of the company is approved by the Board of Directors following a mandatory opinion of the Consultative Audit Committee of the Board;
- ❖ Requesting a previous opinion on the most important transactions from the part of the internal control structures (Consultative Audit Committee and Internal Audit Department);
- ❖ Providing negotiations, regarding such transactions, to one or many independent administrators or administrators without any connections with the respective involved parties;
- ❖ Appeal to independent experts.

Apart from the general legal provisions, SNN established and implemented internal policies that regulate in more details the procedures concerning the disclosure of transactions between affiliates.

Thus, the Board of Directors will inform the shareholders, during the first GMS following the conclusion of the legal act on any transaction with administrators or directors, with employees, with shareholders holding the control of the company or with a company controlled by them, by making available to the shareholders the documents reflecting the essential and significant data and information in connection with these transactions. Also, the Board will inform the Company controlled by them, making available to the shareholders the documents that contain essential and significant information related to these transactions. At the same time, the Board of Directors will inform the shareholders during the first General Assembly, following the conclusion of the juridical form, about any transactions sealed with SNN, as a public company, with other public company or public supervisory body, in case the transaction or a series of transactions have an individual value of at least 100,000 euros.

The Board of Directors quarterly approves an informative report regarding the purchase of goods, services and works whose value is higher than 500,000 euros/purchase (for purchases of goods and works) and 100,000 euros/purchase (for services), a report



## **ANNUAL REPORT 2017**

published on the website of the company in the section Relations with Investors/Periodical Reports.

The Board of Directors also approves and publishes, on an annual basis, on the SNN website, a report regarding the sponsorships awarded in the previous year.

### ***10.8.SINTERNAL AUDIT***

In 2017, the internal audit activity in SNN was carried out by its own internal audit structure, namely the Internal Audit Department (IAD), which reported institutionally to the Company General Manager, having its independence ensured by reporting directly to the BoD and the Audit Committee. The management of SNN assured the improvement of the professional quality of IAD by supporting the Program for Insurance and Improvement of Quality. The majority of the internal auditors are professionals who possess certificates which are recognized internationally (CIA, CRMA).

During 2017, there were no issues regarding the independence and competence of the internal auditors and were not identified any non compliances with the rules and principles mentioned in the Code of Ethics of the SNN internal auditors.

The branches, CNE Cernavoda and FCN Pitesti do not have internal audit structures and their audits are done by the Internal Audit Department from central level.

IAD operates following its own principles which are updated whenever it is necessary. The main internal procedures, on which basis the IAD operates, are as follows:

- The detailed rules regarding the organization and execution of internal audit inside SNN;
- The internal audit Charta.

The detailed rules were elaborated according to the legislation into force (Resolution no. 1086/2013 and Law no. 672/2002, republished), the Standards for Professional Practice of Internal Audit of the Institute of Internal Audit (IIA-Inc) and the best practices in this field.

In addition, the Program for Insurance of Quality Improvement continued at IAD level with the view to:

- Offer a suitable level of insurance so that the activity carried out by the internal auditors add value and contribute to the improvement of SNN processes and activities;



## ANNUAL REPORT 2017

- To provide additional assurance to the fact that the work is performed in accordance to the applicable law and the Code of Ethics of Internal Auditor.

The internal audit activity operated based on the annual plan, approved by the General Manager of the Company. Also, at the end of the year, the General Manager approved the multi-annual Audit Plan for 2017 - 2019, which intends to cover most of the areas for audit according to the law in force.

During the year 2017, IAD conducted 6 insurance missions and numerous consultancy missions on SNN level (Headquarters and branches). The Internal Audit Department monitors permanently the implementation level of the recommendations made during the internal audit missions, the internal auditors requesting at the deadlines the communication of the stage and where possible, the transmission of the implementation proofs. After the implementation deadline expires, the auditors go the audited entity to verify the conformity of the received information and to establish new implementation deadlines, if the case.

In 2017, the company complied with the provisions of art. 21 par. 8 of Law no. 672/2002, republished, were complied with the internal auditors' professional competence in SNN by attending the refresher/training courses, as well as individual studies.

## 11. PRESENTATION OF THE GROUP

SNN owns only one branch, namely Energonuclear S.A. ("EN"), with a percentage of participation in share capital of 100% on December 31, 2017. It enters within the consolidation perimeter.

### *History and presentation*

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





## **ANNUAL REPORT 2017**

After the withdrawal from the Project of the CEZ shareholders (on December 30th, 2010) and RWE, GDF Suez and Iberdrola (on 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 on January 17, 2014 a share of 100% in the share capital of EN.

The share capital of the company EN on December 31st 2017 is 146,152,998.73 lei, representing the equivalent of 35,000,000 Euros. The share capital is divided into 37.105.029 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, District 2, offices no. 307, 315, 315A, 315B, 315C, 316, 317. Order number in the Trade Register is J40/3999/2009, and the Unique Registration Code is 25344972.

### ***Articles of incorporation***

The Articles of Incorporation of EN was amended, and the amendments were approved by Resolutions of the Extraordinary Assembly of Shareholders, within the program for limiting the activities of Energonuclear S.A. initiated by HAGEA 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 Assembly of Shareholders no. 2 of January 18, 2017, which decided to relocate the registered office of EnergoNuclear to the aforementioned address.

### ***Documents of appointment/revocation of administrators***

Energonuclear is managed in a unitary system. The Board of Directors consists of 3 administrators appointed by the General Meeting of Shareholders for a period of 4 years. 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.

The Board of Directors of EN had the following members at the end of 2017:

- Elena Popescu: Chairman;
- Ion Sarbulescu: Member;
- Liviu - George Fotache: Member.



## ANNUAL REPORT 2017

### *The management of Energonuclear*

During the year 2017, the executive management of EN was ensured by the following managers:

1. Minodor Teodor Chirica: General Manager – Mandate contract valid until 14.11.2017, extended by 12 months by HCA no. 6/09.10.2017 and suspended for 4 months starting with 16.10.2017 according to HCA no. 8/13.10.2017;
2. Cristian Felician Talmazan: Technical Service Manager (Individual employment contract concluded for a definite term starting with October 16, 2017) by temporarily taking over the attributions of General Manager according to HCA no. 8/13.10.2017.

### *Description of activity*

During the year 2017, the company has developed activities that targeted actions necessary for the execution and continuation of the project Units 3 and 4 of Cernavodă Nuclear Power Plant (“The Project”), out of which the most important were:

- ❖ Insurance of the assistance, mostly technical, 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. Also, assistance was offered and updated information was made available regarding EN (technical, financial, accounting, commercial, juridical) which were requested during the process advancement “Due Diligence”.
- ❖ Monitoring the state of the location and structures of Units 3 and 4 Cernavoda (site visits of own personnel for observation and ensuring the interface with the experts of the selected investor), both from own initiative, and following the inspection performed by CNCAN on Units 3 and 4 at CNE Cernavoda in 25-26.10.2016, the CNCAN visit of 17-18.08.2017 and the inspection performed by CNCAN on Units 3 and 4 at CNE Cernavoda in 24÷27.10.2017; issuing the resulted action plans and their monitoring.
- ❖ Identifying the existing technical documentation for Units 3 and 4 CNE Cernavoda, preparation of the annexes representing the documentation related to Cernavoda NPP Units 3 and 4 which represented the base for the construction – fitting phase, together with the existing quality documentation as per the Custody Transfer Agreement concluded on June 5th, 2009 between SNN/Cernavoda NPP and EN with the purpose of returning them to SNN/Cernavoda NPP.
- ❖ Transferring the technical documentation owned by Energonuclear related to Units 3 and 4 CNE Cernavoda and resulted from the advancement of the agreement with the third

## ANNUAL REPORT 2017

parties, together with technical documentation of Energonuclear related to units 3 and 4 from CNE Cernavodă, drafted by their own personnel, in order to keep it in custody at SNN/CNE Cernavodă. The operation was registered in the Informative Report “Transfer of the archive of EnergoNuclear to SNN-CNE Cernavoda”.

- ❖ The existing technical documentation for Units 3 and 4 CNE Cernavoda was identified, and the Informative Report “Performance, assembly and as-built drawings.” Preparing the necessary documentation for the new mixed company” was drafted.

- ❖ Reassessing the Design Change Notices list by comparing the requirements from LBD.

- ❖ Drafting a report, at the request of ANDR, regarding the estimated inventory of the nuclear waste in the Project (in conjunction with SNN).

- ❖ Monitoring the evolution of the works on the Danube, in the Calarasi - Braila sector, periodical notifications of the stakeholders, including the participation in the 3rd seminar organized by AFDJ with international advisers and the representatives of the European Commission, of May 17, 2017, an action that included the analysis of the studies performed by AFDJ and the assessment of the impact on ensuring the cooling water for the CNE Cernavoda location in extreme weather conditions.

- ❖ Ensuring support upon the request of DGPE/Ministry of Energy on several matters of interest for the ministry, out of which: (1) participation in the “Nuclear Like-Minded Dinner” organized by the Permanent Agency of Romania to EU, (2) providing the necessary information within the process of Romania’s joining the Nuclear Energy Agency (NEA) within OECD, and preparing the NEA visit to Romania, (3) identifying the risks of not building Units 3 and 4 Cernavoda, (4) comments on the project of the Energy Efficiency Directive and carbon taxation, (5) comments on the tender book regarding the support mechanisms for non-carbon technologies, (6) comments to the SNN note on extending the lifecycle at Unit 1 CNE Cernavoda, (7) drafting the CNE chart for Cernavoda Units 3 and 4, (8) preparing the meetings with the delegation of SNC Lavalin etc.

- ❖ Preparing, negotiating and signing the SNN-EN shareholder loan contract convertible in shares, approved by CA SNN on 10.10.2017 and AGEA EN on 18.10.2017, the date of its effectiveness. The scope of the contract is crediting EN by SNN, for the exclusive financing of the expenses EN will incur in relation to (1) the works for maintaining and preserving the site of U3-U4 CNE Cernavoda, (2) personnel expenses of EN that will be absolutely necessary in relation to the signing and implementation of the maintenance and preservation contracts for site U3-U4, (3) other EN expenses for implementing and monitoring the performance of maintenance and preservation works at the U3-U4 site, including general and administrative expenses.

- ❖ Participation in business meetings for developing the cooperation with the nuclear industry from France, Canada and Great Britain.



## ANNUAL REPORT 2017

- ❖ Participation in national and international events: SIEN'2017 (AREN), Nuclear 2017 (RATEN), IFNEC meeting on radioactive waste (ANDR), “Energy Strategy” debate (ROEC), “Energy Trilema” debate (CNR-CME) etc.
- ❖ Managing current administrative, financial-accounting and legal problems, with EN own personnel and services contracted by EN.

EN resources mainly come from:

- Draws from the shareholder loan contract concluded by SNN with EnergoNuclear;
- Cash contributions made by the shareholders;

and to a very small degree from interests.

On December 31, 2017 EN had 7 employees with work hours of up to 40 hours a week/week, and an employee with her individual employment contract suspended for child raising.

### *Litigations*

On March 06, 2017, EN received the Notification on the judgment in the most important litigation of EN, the litigation with the Court of Auditors – Chamber of Accounts of Bucharest (“CC-CCMB”), regarding the cancellation of Inspection report no. 7179/2.11.2011 and Resolution no. 97/28.11.2011 issued by CC-CCMB and the cancellation of authentication no. 22/09.02.2012 of the Court of Auditors - Appeal Settlement Board. By the public decision displayed on the Portal of Bucharest Court, Department II- Administrative and Fiscal Section, the application of EN was approved and the Inspection Report no. 7179/2.11.2011 is annulled, Resolution no. 97/28.11.2011 is annulled, both issued by issued by CC-CCMB, and Authentication 22/09.02.2012 of the Court of Auditors - Appeal Settlement Board.

After obtaining a favorable judgment in this litigation, EN will recover the profit tax paid to the state budget in value of 780.409 lei. An accounting and legal process regarding the recovery manner will be initiated. At the same time, accounting policies will be implemented in order to avoid similar situations.

The litigations of EN with its employees or former employees, requesting the recovery of annual leave compensations for 2009-2010, representing compensations in value of 556,526 lei, which were ordered by applying measure no. 8 from the judgment of the Court of Auditors no. 97/2011, are suspended.



## ANNUAL REPORT 2017

Actions will be taken in order to close the litigations of EN with its employees or former employees.

## 12. SUBSEQUENT EVENTS

By the Resolution of the Extraordinary General Assembly of Shareholders of SNN no. 4/02.03.2018, the following measures were approved:

❖ Continuing the negotiations on the Investment Documents under the same conditions from the Memorandum of Understanding, for 6 months after the date of institution and corporate approval, by applying all the other provisions of the Memorandum of Understanding, including the possibility for any party to terminate the Memorandum of Understanding without any compensations by a simple written notification to the other Party, if an agreement has not been reached on the Investment Documents, and insofar as the delay has not been caused by the respective Party.

❖ The amendment of the Articles of Incorporation of SNN, according to the report submitted to the shareholders for this topic on the agenda (topic 2 of the AGEA agenda of March 02, 2018). The modifications mainly target: the elimination of the secondary scope of activity - NACE code 3512 "Transmission of electricity"; reformulating certain articles or removing some provisions that are unclear, redundant or no longer up-to-date following the amendment of the legal framework; removal of the provisions of art. 7 par. (8) regarding the delegation to the Board of Directors of the increase of the share capital by issuing new shares in exchange of shareholder contributions, provisions that are no longer up-to-date; the share capital increase was completed on December 03, 2015; clarifying and supplementing the organization and attributions of the General Assembly of Shareholders.

### 13. STATEMENTS AND SIGNATURES

Based on the most accurate available information, we confirm that the individual financial statements and the consolidated ones elaborated in compliance with the applicable accounting standards (the International Financial Reporting Standards approved by the European Union) provide a correct and true image regarding the financial position of the company and group, financial performance and cash flow for the 2017. This report, drafted according to the provisions of art. 63 of Law 24/2017 on the issuers of securities and market operations and Appendix no. 32 to Regulation no. 1/2006 for the financial year ended 31st December 2017, provides a correct and true image regarding the development and performance of the company and of the group, as well as a description of the main risks and uncertainties specific to the unfolded activity.

**Iulian - Robert Tudorache**  
**President of the Board of Directors**

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

**Adrian Gabriel Dumitriu**  
**CFO**

## 14. APPENDIXES

### APPENDIX I: ARTICLES OF INCORPORATION AMENDED IN 2017

By the Resolution of the Extraordinary General Assembly of Shareholders no. 6/24.08.2017, the amendment of the Articles of Incorporation of SNN was approved, following the request of the majority shareholder, the Ministry of Energy, which supplemented the agenda of AGA SNN of 24.08.2017 with two additional sections, as follows:

1. Approval of the amendment of the Articles of incorporation of SN Nuclearelectrica SA, as follows:

(i) Letter k) “approves the administration plan, which includes the administration strategy for the duration of the Board’s members mandate” of par. (2) of art. 13 – Attributions of the General Assembly of Shareholders is removed;

(ii) Letter d) “Prepares and presents the administration plan which included the strategy of the company for the duration of its mandate to the General Meeting of Shareholders for approval” of par. (3) of art. 19 – Attributions of the Board of Directors is removed.

2. Mandating the Chairman of the Board of Directors to sign the updated Articles of Incorporation and to fulfill all and any necessary formalities for registering the mentions regarding the amendment of the Articles of Incorporation and its submittal, in its updated form, to the Trade Register Office within the Bucharest Court of Law. The agent will delegate to other persons his/her mandate for fulfilling the aforementioned formalities.

The Articles of Incorporation of EN was amended, and the amendments were approved by Resolutions of the Extraordinary Assembly of Shareholders, within the program for limiting the activities of Energonuclear S.A. initiated by HAGEA no. 1/30.01.2015, and accommodated successive reductions of personnel and successive reductions of premises,



**ANNUAL REPORT 2017**

and the last amendment was ordered by the Resolution of the Extraordinary General Assembly of Shareholders no. 2 of January 18, 2017, which decided to relocate the registered office of EnergoNuclear to the aforementioned address.



## ANNUAL REPORT 2017

### APPENDIX II: IMPORTANT CONTRACTS CONCLUDED BY THE COMPANY IN 2017

In 2017, the Company sent to the Bucharest Stoke Market 30 reports regarding the transactions made with entities in which the Romanian State, the majority shareholder of SNN, exercises its direct control, according to art. 225 of Law no. 297/2004 and art. 82 of Law no. 24/2017 regarding the issuers of financial instruments and market operations.

The detailed situation of the above mentioned reports is as follows.

#### *Transactions with electric power*

No.	Parts of the legal act	Document drafting date and registration date	Legal document nature	Object description	Total value	Mutual claims	Set up securities	Payment terms and methods	Stipulated penalties
1	SNN and Electrica Furnizare	31.01.2017 55	Contract	Wholesale of power Period: 01.04.2017- 31.12.2017	5,273,538.90 lei	Receivables on 31.01.2017: 36,970,259.57 lei (including VAT).	1,054,548 lei	The payment shall be made after the delivery (55-day warranty). For the entire term of the contract, starting with the last calendar day, an invoice will be issued for the electricity that was actually delivered in the respective month. The payment will be made within 15 business days after the reception of the invoice.	Attributed through PCCB-LC tender. Penalties for payment delay for every day of delay, calculated starting with the day following the maturity till the payment is made, including the amount due. The invoice for penalties will be integrally paid within 5 days since it was issued.
2	SNN and Electrica Furnizare	31.01.2017 56	Contract	Wholesale of power Period:	5,236,903.35 lei	Receivables on 31.01.2017: 36,970,259.57	1,047,222 lei	The payment shall be made after the delivery (55-day warranty). For the entire term of the	Attributed through PCCB-LC tender. Penalties for payment delay for every day of delay, calculated



# ANNUAL REPORT 2017

No.	Parts of the legal act	Document drafting date and registration date	Legal document nature	Object description	Total value	Mutual claims	Set up securities	Payment terms and methods	Stipulated penalties
				01.04.2017-31.12.2017		lei (including VAT).		contract, starting with the last calendar day, an invoice will be issued for the electricity that was actually delivered in the respective month. The payment will be made within 15 business days after the reception of the invoice.	starting with the day following the maturity till the payment is made, including the amount due. The invoice for penalties will be integrally paid within 5 days since it was issued.
3	SNN and Electrica Furnizare	31.01.2017 57	Contract	Wholesale of power Period: 01.04.2017-31.12.2017	5,236,903.35 lei	Receivables on 31.01.2017: 36,970,259.57 lei (including VAT).	1,047,222 lei	The payment shall be made after the delivery (55-day warranty). For the entire term of the contract, starting with the last calendar day, an invoice will be issued for the electricity that was actually delivered in the respective month. The payment will be made within 15 business days after the reception of the invoice.	Attributed through PCCB-LC tender. Penalties for payment delay for every day of delay, calculated starting with the day following the maturity till the payment is made, including the amount due. The invoice for penalties will be integrally paid within 5 days since it was issued.
4	SNN and Electrica Furnizare	31.01.2017 58	Contract	Wholesale of power Period: 01.04.2017-31.12.2017	5,236,903.35 lei	Receivables on 31.01.2017: 36,970,259.57 lei (including VAT).	1,047,222 lei	The payment shall be made after the delivery (55-day warranty). For the entire term of the contract, starting with the last calendar day, an invoice will be issued for the electricity that was	Attributed through PCCB-LC tender. Penalties for payment delay for every day of delay, calculated starting with the day following the maturity till the payment is made, including the amount due.

**ANNUAL REPORT 2017**

No.	Parts of the legal act	Document drafting date and registration date	Legal document nature	Object description	Total value	Mutual claims	Set up securities	Payment terms and methods	Stipulated penalties
								actually delivered in the respective month. The payment will be made within 15 business days after the reception of the invoice.	The invoice for penalties will be integrally paid within 5 days since it was issued.
5	SNN and Electrica Furnizare	31.01.2017 59	Contract	Wholesale of power Period: 01.04.2017- 31.12.2017	10,473,806.70 lei	Receivables on 31.01.2017: 36,970,259.57 lei (including VAT).	2,094,444 lei	The payment shall be made after the delivery (55-day warranty). For the entire term of the contract, starting with the last calendar day, an invoice will be issued for the electricity that was actually delivered in the respective month. The payment will be made within 15 business days after the reception of the invoice.	Attributed through PCCB-LC tender. Penalties for payment delay for every day of delay, calculated starting with the day following the maturity till the payment is made, including the amount due. The invoice for penalties will be integrally paid within 5 days since it was issued.
6	SNN and Electrica Furnizare	31.01.2017 60	Contract	Wholesale of power Period: 01.04.2017- 31.12.2017	10,473,806.70 lei	Receivables on 31.01.2017: Lei 36,970,259.57 (including VAT)	Lei 2,094,444	The payment shall be made after the delivery (55-day warranty). For the entire term of the contract, starting with the last calendar day, an invoice will be issued for the electricity that was actually delivered in the respective month. The payment will be made within 15 business days	Attributed through PCCB-LC tender. Penalties for payment delay for every day of delay, calculated starting with the day following the maturity till the payment is made, including the amount due. The invoice for penalties will be fully paid within 5 days since it was issued.

# ANNUAL REPORT 2017

No.	Parts of the legal act	Document drafting date and registration date	Legal document nature	Object description	Total value	Mutual claims	Set up securities	Payment terms and methods	Stipulated penalties
								after the reception of the invoice.	
7	SNN and Electrica Furnizare	31.01.2017 61	Contract	Wholesale of power Period: 01.04.2017- 31.12.2017	Lei 10,473,806.70	Receivables on 31.01.2017: Lei 36,970,259.57 (including VAT)	Lei 2,094,444	The payment shall be made after the delivery (55-day warranty). For the entire term of the contract, starting with the last calendar day, an invoice will be issued for the electricity that was actually delivered in the respective month. The payment will be made within 15 business days after the reception of the invoice.	Attributed through PCCB-LC tender. Penalties for payment delay for every day of delay, calculated starting with the day following the maturity till the payment is made, including the amount due. The invoice for penalties will be fully paid within 5 days since it was issued
8	SNN and Transelectrica SA	27.02.2017 138	Addendum	Electric power delivery Period: 01.01.2017- 31.12.2017	Value of additional act: RON 103,574.40 Cumulated value in the last 12 months: RON 233,042.40	Debts on 27.02.2017: RON 1,484,037.50 Claims on 27.02.2017: Lei 124.83	n/a	Invoicing within 5 financial days after the end of every agreement month, payment the latest on the 22nd day of the month following the agreement month	Extension of validity term for contract no. 29/01.11.2000
9	SNN with Societatea de Distributie a Energiei Electrice Muntenia Nord S.A.	12.04.2017 302	Contract	Wholesale of electric power Period: 01.07.2017- 30.06.2018	Lei 14,745,708.00 (without VAT)	Debts on 12.04.2017: Lei 2,279,448.00	n/a	Prepayment of the electric power in two parts. The invoice for the advance payment I is issued in the month preceding the delivery month for the period 1-	Attributed through PCCB-LC tender. Penalties for payment delay for every day of delay, calculated starting with the day following the maturity till the payment is made,

# ANNUAL REPORT 2017

No.	Parts of the legal act	Document drafting date and registration date	Legal document nature	Object description	Total value	Mutual claims	Set up securities	Payment terms and methods	Stipulated penalties
								15 of such delivery month, representing the equivalent value of the electricity to be delivered in the first tranche. 15 days before the delivery the invoice for the advance payment II is issued, i.e. in the period between the 16th day and the last day of delivery. The payment shall be made no later than the 6th business day since the day the invoice was sent	including the amount due. The invoice for penalties will be fully paid within 5 days since it was issued.
10	SNN with Societatea de Distribuție a Energiei Electrice Muntenia Nord S.A.	12.04.2017 303	Contract	Wholesale of electric power Period: 01.07.2017- 30.06.2018	Lei 14,743,080.00 (without VAT)	Debts on 12.04.2017: Lei 2,279,448.00	n/a	Prepayment of the electric power in two parts. The invoice for part I is issued in the month before the service delivery within the first 15 days of the delivery month, and represents the equivalent value of the electric power that is to be delivered in the first part. 15 days before the delivery the invoice for the advance payment II is issued, i.e. in the period between the 16th	Attributed through PCCB-LC tender. Penalties for payment delay for every day of delay, calculated starting with the day following the maturity till the payment is made, including the amount due. The invoice for penalties will be fully paid within 5 days since it was issued

# ANNUAL REPORT 2017

No.	Parts of the legal act	Document drafting date and registration date	Legal document nature	Object description	Total value	Mutual claims	Set up securities	Payment terms and methods	Stipulated penalties
								day and the last day of delivery. The payment shall be made no later than the sixth business day since the day the invoice was sent.	
11	SNN and CNTEE Transelectrica SA	16.06.2017 539	Contract	Wholesale of power Period: 01.07.2017- 31.12.2018	Lei 24,673,932.50	Receivables on 16.06.2017 RON 8,991.15	n/a	Total prepayment of the electric power. The invoice for the advance payment is issued in the month preceding the delivery, 15 calendar days before the beginning of the delivery period for the electricity to be delivered in such month. The payment shall be made no later than the sixth business day from the date of receiving the invoice by fax or by e-mail.	Attributed through PCCB-LC tender. Penalties for payment delay for every day of delay, calculated starting with the day following the maturity till the payment is made, including the amount due. The invoice for penalties will be fully paid within 5 days since it was issued.
12	SNN and Electrica Furnizare	22.06.2017 1056	Addendum No. 8 to Contract 526 date 31.12.2013	Wholesale of power Period: 01.07.2017- 31.12.2017	RON 28,777,043.59 (without VAT)	Receivables on: 22.06.2017 RON 1,083,463.81	n/a	Payment is made within 10 financial days from the date on which the invoice was issued + 15 days of accepted payment delay	Change of prices regulated by the Addendum according to ANRE Resolution no. 861/13.06.2017, amending the 14.12.2016 of the President of ANRE no. 1960 dated 14.12.2016 regarding the approval of the prices regulated for the

# ANNUAL REPORT 2017

No.	Parts of the legal act	Document drafting date and registration date	Legal document nature	Object description	Total value	Mutual claims	Set up securities	Payment terms and methods	Stipulated penalties
									electricity delivered and the quantities of electricity sold based on contracts regulated in 2017. The provisions of Resolution 861/13.06.2017 apply as of 01.07.2017.
13	SNN with Societatea Electrica Furnizare S.A.	11.10.2017 no. 1000	Contract	Wholesale of power Period: 01.01.2018 - 31.12.2018	Lei 35,390,400.00	Receivables on: 11.10.2017 Lei 7,446,422.62	Lei 6,302,400.00	The payment shall be made no later than the seventh business day since the day the invoice was sent. The invoice is issued in the first business day of the month immediately following the delivery month	Attributed through PCCB-NC tender. Penalties for each day of delay, corresponding as a percentage to the interest due for failure to pay when due the obligations to the state budget, calculated as of the day immediately after the due date and up to the date of settlement of the amount due. The value of the Performance Bond issued by S.N. Nuclearelectrica S.A. equals Lei 3,539,040, validity 25.01.2019.
14	SNN with Societatea Electrica Furnizare S.A.	24.10.2017 No. 1049	Contract	Wholesale of power Period: 01.01.2019 - 31.12.2019	Lei 17,082,000.00	Receivables on: 24.10.2017 Lei 1,740,746.62	Lei 3,042,000.00	The payment shall be made no later than the seventh business day since the day the invoice was sent. The invoice is issued in the first business day of the month immediately	Attributed through PCCB-NC tender. Penalties for each day of delay, corresponding as a percentage to the interest due for failure to pay when due the obligations to the state budget, calculated as

# ANNUAL REPORT 2017

No.	Parts of the legal act	Document drafting date and registration date	Legal document nature	Object description	Total value	Mutual claims	Set up securities	Payment terms and methods	Stipulated penalties
								following the delivery month.	of the day immediately after the due date and up to the date of settlement of the amount due. The value of the Performance Bond issued by S.N. Nuclearelectrica S.A. equals Lei 1,708,200.00, validity 25.01.2020.
15	SNN with Societatea Electrica Furnizare S.A.	24.10.2017 No. 1050	Contract	Wholesale of power Period: 01.01.2018 - 31.03.2018	Lei 10,881,360.00	Receivables on: 24.10.2017 Lei 1,740,746.62	Lei 6,652,800.00	The payment shall be made no later than the seventh business day since the day the invoice was sent. The invoice is issued in the first business day of the month immediately following the delivery month.	Attributed through PCCB-NC tender. Penalties for each day of delay, corresponding as a percentage to the interest due for failure to pay when due the obligations to the state budget, calculated as of the day immediately after the due date and up to the date of settlement of the amount due. The value of the Performance Bond issued by S.N. Nuclearelectrica S.A. equals Lei 1,632,204, validity 25.04.2018.
16	SNN with Societatea Electrica Furnizare S.A.	24.10.2017 No. 1057	Contract	Wholesale of power Period: 01.10.2018 - 31.12.2018	Lei 9,277,800.00	Receivables on: 24.10.2017 Lei 1,740,746.62	Lei 5,544,000.00	The payment shall be made no later than the seventh business day since the day the invoice was sent. The invoice is issued in the first	Attributed through PCCB-NC tender. Penalties for each day of delay, corresponding as a percentage to the interest due for failure to pay when

## ANNUAL REPORT 2017

No.	Parts of the legal act	Document drafting date and registration date	Legal document nature	Object description	Total value	Mutual claims	Set up securities	Payment terms and methods	Stipulated penalties
								business day of the month immediately following the delivery month.	due the obligations to the state budget, calculated as of the day immediately after the due date and up to the date of settlement of the amount due. The value of the Performance Bond issued by S.N. Nuclearelectrica S.A. equals Lei 1,391,670, validity 25.01.2019.
17	SNN with Societatea Electrica Furnizare S.A.	27.10.2017 No. 1064	Contract	Wholesale of power Period: 01.01.2018 - 31.03.2018	Lei 10,924,540	Receivables on: 27.10.2017 Lei 1,740,746.62	Lei 6,679,200	The payment shall be made no later than the seventh business day since the day the invoice was sent. The invoice is issued in the first business day of the month immediately following the delivery month	Attributed through PCCBNC tender. Penalties for each day of delay, corresponding as a percentage to the interest due for failure to pay when due the obligations to the state budget, calculated as of the day immediately after the due date and up to the date of settlement of the amount due. The value of the Performance Bond issued by S.N. Nuclearelectrica S.A. equals Lei 1,638,681, validity 25.04.2018.
18	SNN with Societatea Electrica Furnizare S.A.	27.10.2017 No. 1066	Contract	Wholesale of power Period:	Lei 4,680,960.00	Receivables on: 27.10.2017 Lei 1,740,746.62	Lei 2,798,400	The payment shall be made no later than the seventh business day since the day the invoice	Attributed through PCCBNC tender. Penalties for each day of delay, corresponding as a



## ANNUAL REPORT 2017

No.	Parts of the legal act	Document drafting date and registration date	Legal document nature	Object description	Total value	Mutual claims	Set up securities	Payment terms and methods	Stipulated penalties
				01.07.2018 - 30.09.2018				was sent. The invoice is issued in the first business day of the month immediately following the delivery month.	percentage to the interest due for failure to pay when due the obligations to the state budget, calculated as of the day immediately after the due date and up to the date of settlement of the amount due. The value of the Performance Bond issued by S.N. Nuclearelectrica S.A. equals Lei 702,144.00, validity 25.10.2018.
19	SNN with Societatea Electrica Furnizare S.A.	21.12.2017 No. 1298	Contract	Wholesale of power Period: 01.01.2018 - 31.03.2018	Lei 19,073,469.60	Receivables on: 21.12.2017 Lei 6,894,864.31 Debts on: 21.12.2017 Lei 4,357.65	Lei 2,861,020.44	Payment no later than the 10th day from the beginning of the month that follows the service delivery. Should the due date for payment is a non business day, then the payment due date is deferred until the following business day.	Attributed through PCSU tender. Default interests for every day of delay, calculated to the unpaid sum by applying a percentage equal with that applied to the interest rate owned for the failure to pay the obligations to the state budget in due time. Every participant in the tender that is declared a winner has the obligation to constitute, in favor of each SLR that it shall conclude a sale-purchase agreement with, according to the provisions of art. 63 - ANRE Order no. 65/22.07.2014

**ANNUAL REPORT 2017**

No.	Parts of the legal act	Document drafting date and registration date	Legal document nature	Object description	Total value	Mutual claims	Set up securities	Payment terms and methods	Stipulated penalties
									(consolidated form), the financial Performance Bond. The value of the financial Performance Bond is set at 15% of the total value of the transaction (Vt) corresponding to such contract, established and communicated by OPCSU according to the provisions of art. 62 par. (2) and (4). The value of the financial Performance Bond issued by S.N. Nuclearelectrica S.A. equals Lei 2,861,020.44, validity 07.04.2018.

***Public work contracts***

# ANNUAL REPORT 2017

No.	Parts of the legal act	Date of document conclusion and contract no.	Legal document	Object description	Total value	Reciprocal receivables	Established	Payment terms and methods	Stipulated penalties
1	SNN SA – ADMINISTRATIA NATIONALA APELE ROMANE (ADMINISTRATIA BAZINALA DE APA DOBROGEA LITORAL – ABADL)	18.01.2017/ 27	Addendum no. 1 to subscription no. 908/2016	Subscription supplement for "Spillage into resource of waste water coming from Nuclear Plant – Unit 1 and Unit 2, for 2017"	Value of addendum no. 1 for the period 01.01.2017 – 31.12.2017: Lei 13,340,275.43	SNN debts to ABADL on 18.01.2016: Lei 1,191,542.14	-	Within 30 days of the original invoice issue date	Penalties of 0.01% per day of delay; interests 0.02% per day of delay
2	SNN SA – ADMINISTRATIA NATIONALA A REZERVEI DE STAT SI PROBLEME SPECIALE – Territorial Unit 515 Bucharest	29.03.2017/251	Addendum No. 1 to Contract No. 1087 dated 05.12.2016	Contract price adjustment as a result of the change in the consumer price index communicated by INS [ <i>The National Institute of Statistics</i> ] for February 2017 (Object of the contract: 17,000 kg Heavy water for completion at Unit 1 and 2 at Cernavoda NPP)	Value of addendum: Lei 5,845.18 Total contract value: Lei 31,318,995.18	n/a	n/a	Within max. 2 business days of the Preliminary Acceptance Protocol, based on the original invoice and the accompanying documents	n/a
3	SNN SA – AUTONOMOUS ADMINISTRATION OF TECHNOLOGIES FOR NUCLEAR ENERGY (RATEN) -	09.05.2017 /383	Addendum no. 3 to Master Agreement no. 350/21.03.2014	Adjustment of contract rates (Object of the Master Agreement: Services for the treatment of the waste water	Value of additional act: Lei 12,853.80 Total value of Master Agreement: Lei 957,282	SNN debts to RATEN - ICN on 09.05.2017: Lei 525,125.91	Security established at RATEN- ICN on 09.05.2017: Lei 52,442.57	30 days from the date of the Service Acceptance Protocol based on the original invoice of the binding provider	Penalties 0.06% per day of delay

# ANNUAL REPORT 2017

No.	Parts of the legal act	Date of document conclusion and contract no.	Legal document	Object description	Total value	Reciprocal receivables	Established	Payment terms and methods	Stipulated penalties
	INSTITUTE FOR NUCLEAR RESEARCH PITESTI (ICN)			resulted from the manufacturing of UO2 buttons, powder control and buttons coming from FCN Pitesti branch)					
4	SNN SA (Lessee) – COMPANIA NATIONALA ADMINISTRATIA CANALELOR NAVIGABILE (Lessor)	31.05.2017 /496	Lease contract	The object of the contract consists in the transmission by the Lessor, in exchange for a monthly payment called rent, of the right of use to the Lessee of the Cernavoda Equipment Warehouse	Contract value: EURO 70,028.4 Rent/month Euro 3,501.42 for the period 24.04.2017-31.12.2018	SNN debts to CN ACN on 31.05.2017 Lei 101,810.41: Receivables in relation to CN ACN on 31.05.2017 Lei 574.41	n/a	The payment shall be done at the NBR exchange rate on the invoice issue date, in advance up to day 1 of the month based on the invoice issued up to day 5 of the previous month	Penalties 0.15% per day of delay
5	SNN SA – AUTONOMOUS ADMINISTRATION OF TECHNOLOGIES FOR NUCLEAR ENERGY (RATEN) - INSTITUTE FOR NUCLEAR RESEARCH PITESTI (ICN)	26.06.2017/552	Framework Agreement	Services for the treatment of solid radioactive waste, originating from the activity of FCN Pitesti on the territory of the area of material balance of FCN Pitesti, pursuant to the strategy of SNN - approved by EURATOM, AIEA	Framework Agreement value: Lei 395,328	SNN debts to RATENICN on 26.06.2017: Lei 329,641.75	Securities established on 26.06.2017: Lei 21,332.63	30 days from the date of the Service Acceptance Protocol based on the original invoice of the binding provider	Penalties 0.05% per day of delay

# ANNUAL REPORT 2017

No.	Parts of the legal act	Date of document conclusion and contract no.	Legal document	Object description	Total value	Reciprocal receivables	Established	Payment terms and methods	Stipulated penalties
				and CNCAN Romania - for the management of uranium-contaminated materials					
6	SNN SA - STATE INSPECTION FOR THE CONTROL OF BOILERS, PRESSURE VESSELS AND LIFTING INSTALLATIONS - ISCIR	10.10.2017/1006	Addendum no. 9 to Convention no. 2419/11.03.2008	Services for technical inspection and authorization by ISCIR of equipment/plants, as well as the authorization of the personnel of Cernavoda NPP	Estimated value: Lei 150,000	n/a	n/a	Within 30 calendar days of the invoice registration by the beneficiary	0.1% per day of delay
7	SNN SA – COMPANIA NATIONALA A URANIULUI (CNU)	24.10.2017/1025	Addendum no. 2 to Master Agreement no. 79 dated 06.02.2015	Storage services for the final disposal of the solid radioactive wastes that cannot be burnt (DSR-N) contaminated by natural uranium resulted from the activity of FCN Pitesti branch	Value supplement: Lei 289,400 Total value of Master Agreement: Lei 1,157,600	SNN debt to CNU on 24.10.2017: Lei 2,618,826.90 (of which Lei 2,510,328.09 representing amounts not invoiced by CNU)	Lei 60,172.45	Within 30 days from the issue of the Service Acceptance Protocol and the invoice in original	0.06% per day of delay
8	SNN SA – ADMINISTRATIA NATIONALA APELE ROMANE	14.12.2017/ 1285	Addendum no.2 to subscription no. 908/2016	"Admission waste water produced by Centrala Nucleara -	The value of addendum no. 2 for the period	Debts on 14.12.2017:	n/a	Within 30 days of the original invoice issue date	Penalties of 0.01% per day of delay;

# ANNUAL REPORT 2017

No.	Parts of the legal act	Date of document conclusion and contract no.	Legal document	Object description	Total value	Reciprocal receivables	Established	Payment terms and methods	Stipulated penalties
	(ADMINISTRATIA BAZINALA DE APA DOBROGEA LITORAL – ABADL)			Unit 1 and Unit 2, for 2018”	01.01.2018 – 31.12.2018 is: Lei 13,276,200.11	Lei 1,465,688.05			interests 0.02% per day of delay
9	SNN SA – COMPANIA NATIONALA ADMINISTRATI A CANALELOR NAVIGABILE	21.12.2017/1348	Addendum no. 5 to Contract no. 23/2014	Transit services for the cooling water through pool I and II CDMN	Estimated value of the service for 2018: Lei 1,063,240.85	Receivables on 21.12.2017: Lei 438.56 Debts on 21.12.2017: Lei 121,153.02	n/a	Within 30 day since the acknowledgement of receipt, accompanied by the Acceptance Protocol signed by both parties, whereby the quantities of water transited in the reference month are confirmed	0.06% per day of delay
10	SNN SA – ADMINISTRATI A NATIONALA APELE ROMANE	21.12.2017/ 1363	Subscription no. 2 date 18.12.2017	Use/exploitation of surface and/or underground water – Use of water from the Danube for Cernavoda NPP (Unit 1 and Unit 2) in 2018	Lei 59,927,736	Debts on 21.12.2017: Lei 5,880,746.19 lei	n/a	Within 30 days of the original invoice issue date	Penalties of 0.01% per day of delay; interests 0.02% per day of delay

***Term deposits opened at Romanian Export – Import Bank EXIMBANK S.A. – Bucharest based on Master Agreement of current count no. 499S1/30.04.2014***

No.	Type of deposit	Date of deposit opening	Maturity	Sum	Interest rate
1.	Term deposit	17.01.2017	17.07.2017	Lei 15,000,000	0.87% per year
2.	Term deposit	20.01.2017	21.07.2017	Lei 25,000,000	0.88% per year



## ANNUAL REPORT 2017

3.	Term deposit	15.02.2017	16.08.2017	20.000.000 lei	0.84% per year
4.	Term deposit	23.02.2017	23.08.2017	Lei 25,000,000	0.85% per year
5.	Term deposit	06.06.2017	06.12.2017	Lei 15,000,000	0.80% per year
6.	Term deposit	17.07.2017	17.01.2017	Lei 15,000,000	0.79% per year
7.	Term deposit	21.07.2017	22.01.2018	Lei 25,000,000	0.80% per year
8.	Term deposit	16.08.2017	16.02.2018	20.000.000 lei	0.80% per year
9.	Term deposit	23.08.2017	23.02.2018	Lei 25,000,000	0.80% per year
10.	Term deposit	06.12.2017	06.06.2018	Lei 15,000,000	1.95% per year



## ANNUAL REPORT 2017

### APPENDIX III: APPOINTMENT/REVOCATION DOCUMENTS IN 2017

With the Resolution of the Ordinary General Meeting of Shareholders of SNN no. 5/24.08.2017, the following provisional administrators have been revoked from their positions by the General Meeting of Shareholders, as a result of resignation or expiry of the mandate, some of them being re-elected for a new provisional mandate:

- Ionut Misa, Provisional Administrator, revocation as a result of resignation;
- Eva Georgeta Andreas, Provisional Administrator, revocation as a result of mandate expiry;
- Cristian Romulus Anton, Provisional Administrator, revocation as a result of mandate expiry;
- Cristian Gentea, Provisional Administrator, revocation as a result of mandate expiry;
- Iulian-Robert Tudorache, Provisional Administrator, revocation as a result of mandate expiry;
- Elena Popescu, Provisional Administrator, revocation as a result of mandate expiry.





ANNUAL REPORT 2017

#### **APPENDIX IV: LIST OF HEADQUARTERS**

S.N. Nuclearelectrica S.A. has its central headquarters at 65 Polona Street, District 1, Bucharest.



## ANNUAL REPORT 2017

### APPENDIX V: LIST OF BRANCHES

S.N. Nuclearelectrica S.A. has two branches that without legal personality, as follows:

- ❖ CNE Cernavoda branch, with registered office in Constanta County, Cernavoda City, 2 Medgidiei Street registered with the Trade Register under no. J13/3442/11.10.2007, operating Units 1 and 2, as well as the auxiliary services.
- ❖ FCN Pitesti Branch, with registered office in Arges County, Mioveni City, 1 Campului Street, registered with the Trade Register under no. J03/457/24.08.1998, where nuclear fuel bundles are being produced, required for the operation of Units 1 and 2 CNE Cernavoda.



## ANNUAL REPORT 2017

### APPENDIX VI: LIST OF SUBSIDIARIES

On 31 December 2017, SNN holds shares in only one filial – Energonuclear S.A., having a share percentage of 100%, and being a company that was established with the purpose to develop and implement the Execution Project of Units 3 and 4 Cernavoda NPP.

Energonuclear S.A. with its main headquarters in 5-7 Vasile Lascar Street, 3rd floor, District 2, offices no. 302, 303, 304, 305, 305A, 305B, 306, 306A, 307, 308, 315, 315A, 315B, 315C, 316, 317, is registered in the Trade Register under no. J40/3999/25.03.2009, having the Sole Registration Number 25344972.

The main activity of Energonuclear S.A. consists of Engineering and Technical Advice related to them – Cod CAEN 7112.

This company has a second headquarters (place of business) on the site of Cernavoda NPP – Constanta County, the town of Cernavoda.



ANNUAL REPORT 2017

## APPENDIX VII: LIST OF AFFILIATED PERSONS

The SNN affiliated persons are:

- ❖ Energonuclear S.A. Branch;
- ❖ All majority state-owned or state-controlled companies or entities (institutes, authorities etc.), that SNN has commercial relationships with.

**APPENDIX VIII: LIST OF MAJOR LITIGATIONS IN PROGRESS ON 31.12.2017 (OVER 500 THOUSAND LEI), INCLUDING THOSE THAT HAVE NOT BEEN MONETARY ASSESSED**

Run. No.	Case number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
<b>SNN Executive</b>								
1.	3868/118/2012	Civil Constanta Court	Creditor	S.C. Proconex Universal S.R.L.	Insolvency. Bankruptcy. Receivable Lei 3,369,886.85.	Merits	Procedure in progress.	26.03.2018
2.	2183/115/2010	Caras-Severin Civil Court of Law	Creditor	S.C. CET Energoterm Resita S.A.	Insolvency. Bankruptcy. Receivable Lei 580,974.21.	Merits	Procedure in progress.	28.06.2018
3.	48031/299/2010	Penal District 1 Judicature Bucharest Court of Appeal	Civil Party	Rotaru Ioan, Ispas Gheorghe, Irimie Traian TESS civil liability party.	Corruption offences - abuse of office. SNN is a civil party in the lawsuit with damages estimated to Lei 13,493,080.3.	Appeal	<i>Merits</i> Sentences the defendants to jail and damage payment.  <i>Appeal</i> Partially approves the evidence requested by the defendants. Approves the hearing of the witnesses, and hearing new witnesses. Approves for the parties the evidence of documents	Completed

# ANNUAL REPORT 2017

Run. No.	Case number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
							submitted to the file. Postpones the decision regarding specialized expertise studies for the next hearing. Rejects, as groundless, the other evidence requested by the parties and the requests for issuing memorandums to S.N. Nuclearelectrica S.A., Tess Conex S.A. and the Government of Romania in order to obtain documents/normative acts. Postpones the decision regarding the request to notify the Constitutional Court to resolve the non-constitutionality exception of the provision of art. 297 par. 1 let. c) of the Criminal Code and art. 13 ind. 2 of Law no. 78/2000, for the next hearing.	
4.	9089/101/2013	Civil Court of Law Mehedinti	Creditor	Autonomous Administration for Nuclear Activities (RAAN)	Insolvency. Receivable in the reorganization plan Lei 5,450,135.91.  Winding-up bankruptcy.  Receivable Lei 7,828,405.48.	Merits	Procedure in progress.  In virtue of art. 107 par. 1 let. C Law no. 85/2006. Orders the start of the procedure for the bankruptcy of the debtor. In virtue of art. 107 par. 2 Law no. 85/2006. Appoints as a temporary legal liquidator Euro Insol SPRL.	22.03.2018
5.	7238/120/2012	Civil Court of Law Dambovit	Creditor	S.C. Eco Energy S.R.L.	Bankruptcy.  Receivable Lei 2,464,059.64.	Merits	Procedure in progress.  Receivable registered with the consolidated list of creditors. Enforcement of the receivable to recover from Edland S.R.L.	23.04.2018

## ANNUAL REPORT 2017

Run. No.	Case number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
6.	873/1259/2008	Civil Arges Court of Law	Creditor	Termoficare 2000 S.A.	Insolvency Bankruptcy. Receivable Lei 2,713,986.71.	Merits	Procedure in progress.	15.05.2018
7.	18770/3/2007	Civil Bucharest Court of Law	Creditor	S.C. Con - Dem S.A.	Insolvency Bankruptcy. Receivable Lei 2,446,227.08.  The receivable approved in the payment program is Lei 2.079,293.02  (85% of the receivable accepted in the table).	Merits	Procedure in progress.	16.05.2018
8.	3793/2/2013	Administrative High Court of Court of Appeal Cassation and Justice	Respondent	Greenpeace CEE Romania	The cancellation of the decision issuing the environmental agreement and the agreement on the environment on the Project	Appeal	<i>Merits</i>  Admits the exception of lack of object of the second end of the initial petition (cancellation of the environment agreement regarding the project "Continuation of the construction works and completion of Units 3 and 4).	The hearing is next.

## ANNUAL REPORT 2017

Run. No.	Case number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
					Units 3 and 4.		<p>Rejects head II of initial demand set forth in relation to the cancellation of the agreement on the environment on the project "Continuation of construction and completion works of Units 3 and 4 CNE Cernavodă", as devoid of object. Overrules the rest of the petition, as it was completed by the additional petition, as ungrounded.</p> <p><i>Appeal</i></p> <p>The Decision No. 2100 dated June 23rd 2016. Accepts the appeal drafted by the Greenpeace Cee Romania Foundation and the Bankwatch Romania Association against the decision no. 1436 from May 9th, 2014 of the Bucharest Court of Appeal – Section 8th administrative and fiscal department. Reverses the appealed sentence and send the cause back to the retrial towards the same Court. Final, today, June 23rd 2016.</p> <p><i>Retrial merits (CAB)</i></p> <p>Rejects the summons as ungrounded. With appeal within 15 days from the intimation. Decision no. 2208/2017.</p>	
9.	11661/3/2014	Bucharest Court of Appeal  Bucharest Court of Law – Retrial	Respondent	S.C. Fondul  Proprietatea S.A.	States the absolute nullity of the SNN EGMS Decision no. 1/11.03.2014.	Appeal  Retrial merits	<p><i>On the merits (TB)</i></p> <p>Rejected the request of Fondului Proprietatea S.A. accepting the exception of the lack of interest in relation to the object of the request.</p>	Suspended



# ANNUAL REPORT 2017

Run. No.	Case number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
							<p><i>Appeal CAB</i></p> <p>Admits the appeal of Fondului Proprietatea S.A., cancels the sentence appealed and sends the case for retrial at the same Court. Final.</p> <p><i>Retrial merits (TB)</i></p> <p>The court of law ruled the suspension of the case in relation with the fact that the Bucharest Court of Law and Craiova Court of Appeal requested to the Justice Court of the European Union clarifications regarding the possibility of state aid regarding the projects from the SNN EGMS decision no. 1/11.03.2014.</p>	
10.	40046/3/2014	Bucharest Court	Respondent	S.C. Fondul Proprietatea S.A.	<p>Finding the absolute nullity of the EGMS Resolution no. 8/6.10.2014 increase of share capital with cash input by issuing shares.</p> <p>Mentioning the decision of the court at the Trade Register and lifting the mentions from the Trade</p>	Merits	<p><i>Merits</i></p> <p>Rejects the summons as ungrounded. With appeal within 30 days from the intimation. Decision no. 4082/07.11.2017.</p>	Judgment not drafted yet.

## ANNUAL REPORT 2017

Run. No.	Case number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
					Register based on the annulled EGMS Resolution.			
11.	416/2/2014	Administrative High Court of Bucharest Court of Appeal  ICCJ	Claimant  Claimer	National Energy Regulatory Authority	Change in regulated tariff through Decision no. 3609/2013.	Merits	<i>Merits</i>  On 14.10.2014 the court rejected the claim as unsubstantiated. Decision no. 2723/ 14.10.2014.	27.05.2018
12.	1794/118/2016	Penal  Court of Law  Constanta	Civil  party	Bucur Ionel  Negulici Elena  Olteanu Madalina  Encica Ionel  Nicola Laurentiu  Daramus Victor  SC Davy Security S.R.L. civilly liable party by legal administrator.	Prejudice  Euro 3,471,463.	Merits	<i>Merits</i>  In order to continue the investigation by hearing the defendants. Discussing the evidence.	18.04.2018

## ANNUAL REPORT 2017

Run. No.	Case number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
13.	38724/3/2014	Bucharest Court  Section II - administrative division	In hock third party	The Romanian State by the Ministry of Public Finance	Appeal against the enforcement and cancellation of all the foreclosure decisions from the foreclosure file 22/2014 creditors Multipack SRL, European Food SA, Starmil SRL, Micula Ioan.	Merits	<i>Merits</i>  In virtue of art. 413 par. 1 pt. 1, NCPC suspends the trial until the final resolution of the Case-file No. 15755/3/2014. With appeal throughout the suspension.	Suspended
14.	13275/3/2015	Bucharest Court  Bucharest Court of Appeal	Respondent	S.P.E.E.H. Hidroelectrica S.A.	Claims Lei 40,812,717 difference of the equivalent value for purchasing energy insurance contract and selling energy and legal interest.	Merits	<i>Merits</i>  Admits the exception of the material law prescription to the action. Rejects the law suit application as prescribed. With appeal within 30 days of the intimation. Decision no. 6860/07.12.2015.  <i>Appeal</i>  Dismisses the appeal as groundless. With appeal within 30 days of the intimation, that is submitted to Bucharest Court of Appeal.  <i>Appeal</i>	The hearing is next.
15.	3490/121/2015	Civil  Court of Law	Claimer	S.C. ArcelorMittal Galati S.A.	Claims Lei 8,575,245,78 difference amount energy sale made	Merits	<i>Merits</i>  Rejects the action to oblige the claimant to pay damage deriving from contract no. 207/22.02.2013 as ungrounded.	The hearing is next.

# ANNUAL REPORT 2017

Run. No.	Case number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
		Galati Court of Appeal Galati ICCJ			redundant and other associated expenses.		<p><i>Appeal</i></p> <p>Approves the appeal stated by the claimant S.N. Nuclearelectrica S.A. against civil judgment no. 278/20.12.2016 issued by Galati Court - Civil Section II in File no. 3490/121/2015. Fully changes the appealed judgment and, in retrial. Partially admits the action. Orders ArcelorMittal Galati S.A. to pay to the claimant S.N. Nuclearelectrica S.A. the amount of Lei 8,645,467.52, as damage compensations. Rejects as unsubstantiated the appeal initiated against the resolution of 26.05.2016 of the same court. Orders the defendant to pay Lei 142,132.97, trial expenses - merits and appeal. Decision no. 227/27.09.2017.</p> <p><i>Appeal</i></p>	
16.	4960/2/2015	Administrative High Court of Bucharest Court of Appeal ICCJ	Claimer	Court of Auditors	Suspension of measure enforcement INSURANCE POLICIES D&O.	Merits	<p><i>Merits</i></p> <p>Partially admits the petition and suspends the execution of point II.12 part of the resolution no. 16/11.05.2015 issued by the Romanian Court of Accounts, Department IV until the final solving of the case action registered in file no. 4912/2/2015. Enforceable. ICCJ rejects as unacceptable the suspension request of point 10 performance from the resolution no. 59/17.07.2015 and point 3.1.10 of the Control report no. 4371/10.04.2015 issued by the Romanian Court of Auditors.</p> <p><i>Appeal</i></p> <p>Judgment of the panel no. 2525 of 19.09.2017. Rejects the exception of lateness of formulating the appeal. Rejects the</p>	Completed

# ANNUAL REPORT 2017

Run. No.	Case number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
							appeal formulated by the Court of Auditors of Romania against judgment no. 2608 of October 15, 2015 of the Court of Appeal Bucharest - Administrative and Fiscal Section VIII, as unsubstantiated. Final.	
17.	4961/2/2015	Administrative High Court of  Bucharest Court of Appeal  ICCJ	Claimer	Court of Auditors	Suspension of execution TOURIST SERVICES	Merits	<p><i>Merits</i></p> <p>Admits the inadmissibility exception of the petition head regarding the execution suspension pt. 3.1.5 of the Control Report no. 4371/10.04.2015 and, consequently, overrules as inadmissible this petition head. Overrules, in the rest, the execution suspension as not funded. With appeal within 5 days from intimation. Resolution no. 2660/20.10.2015.</p> <p><i>Appeal</i></p>	28.03.2018
18.	4968/2/2015	Administrative High Court of  Bucharest Court of Appeal  ICCJ	Claimer	Court of Auditors	Execution suspension measure contributions LEGAL COUNSELORS	Merits	<p><i>Merits</i></p> <p>Partially admits the action. Rules the suspension of the partial enforcement of Resolution N. 16/2015, namely of the measure arranged at point II.11, as well as the Resolution no. 59/2015-pt. 9, until the final solving of the action in annulment of pt. II.11 from the Decision no. 16/2015 and pt. 9 from the Resolution no. 59/2015. Dismisses the suspension request for Control Report no. 4371/2015 - pt. 3.1.9 - as inadmissible.</p>	The court will establish a hearing.
19.	4969/2/2015	Administrative High Court of	Claimer	Court of Auditors	Suspension of measure enforcement MICROSOFT	Merits	<p><i>Merits</i></p> <p>Overrules the suspension petition of pt. 3.1.11 of the control report no. 4371/10.04.2015 issued by the Romanian Court of Accounts, as inadmissible. Partially admits the suspension</p>	The court will establish a hearing.

## ANNUAL REPORT 2017

Run. No.	Case number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
		Bucharest Court of Appeal ICCJ					petition. Suspends the enforcement of section 11 of resolution no. 59/17.07.2015 and of pt. II.13 of the Resolution no.16/11.05.2015 issued by the Romanian Court of Accounts until the final solving of the action on the case. Enforceable.  <i>Appeal CC</i>	
20.	4970/2/2015	Administrative High Court of Bucharest Court of Appeal ICCJ	Claimer	Court of Auditors	Suspending measure enforcement NON-RESIDENT	Merits	<i>Merits</i>  Partially admits the petition. Disposes the partial suspension of the Resolution no. 16/11.05.2015 regarding point II.8, respectively the Resolution no. 59/17.07.2015 regarding point 6, until the final solving of the action in annulment. Rejects as inadmissible the suspension petition of point 3.1.3 of the Control Report no. 4371-10.04.2015.  <i>Appeal CC</i>  Judgment no. 508/12.02.2018. Rejects the appeal formulated by the Court of Auditors against civil judgment no. 2503 of October 7, 2015 of the Court of Appeal as unsubstantiated. Final. Public session, today, February 12, 2018.	Completed
21.	4971/2/2015	Administrative High Court of	Claimer	Court of Auditors	Suspension of contract unfolding measure	Merits	<i>Merits</i>	The court will

## ANNUAL REPORT 2017

Run. No.	Case number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
		Bucharest Court of Appeal ICCJ			GENERAL CONCRETE		The merits court rejected the application for suspending resolution no. 16/11.05.2015 and resolution no. 59/17.07.2015.	establish a hearing
22.	4959/2/2015	Administrative High Court of Bucharest Court of Appeal ICCJ	Claimer	Court of Auditors	Measure annulment TRIPS	Merits	<i>Merits</i> Admits the request. Partially cancels resolution no. 59/17.07.2015 issued by the claimant, regarding point 3. Partially cancels the Decision no. 16/11.05.2015 issued by the claimant regarding the measures ruled at point 5 and the measure no. I 3. Partially cancels the Control Report no. 4371/10.04.2015 issued by the claimant regarding point 3.1.5. Forces the claimant to pay lei 4,550 trial expenses to the claimant.	The court will establish a hearing.
23.	4902/2/2015 joined with 4907/2/2015 bonuses	Administrative High Court of Bucharest Court of Appeal ICCJ	Claimer	Court of Auditors	Measure annulment CONTRIBUTIONS and BONUSES	Merits	<i>Merits</i> Admits the main petition and the connected petition, regarding points 1 and 2. Admits in part resolution no. 59/17.07.2015 and judgment no. 16/11.05.2015 on section 9 and pt. 8 from the conclusion, respectively the measures from pt. 11 and II.10 of the decision. Overrules as inadmissible pt. 3 from both petitions, regarding the partial annulment of the control report no. 4371/10.04.2015. With appeal within 15 days of the intimation. The appeal will be submitted at CAB - Section VIII. Final. Resolution no. 3419/17.12.2015.	The court will establish a hearing.

## ANNUAL REPORT 2017

Run. No.	Case number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
24.	4906/2/2015	Administrative High Court of  Bucharest Court of Appeal  ICCJ	Claimer	Court of Auditors	Measure annulment  PURCHASES	Merits	<p><i>Merits</i></p> <p>Pursuant to art. 413 par. 1 pt. 1 Cpc suspends the judgment of the present cause until the final solving of the file no 62136/299/2015 of Bucharest Court of Law Sector 1. With appeal throughout the duration of the suspension. Resolution - Suspension 18.01.2016</p> <p>Dismisses the action as groundless. With appeal within 15 days of the intimation. Pronounced today, 10.10.2016.</p> <p>Dismisses the action as groundless. With appeal within 15 days of the intimation. Pronounced in public session today, 10.10.2016.</p> <p>Resolution no. 2961/2016.</p> <p><i>Appeal</i></p>	The court will establish a hearing.
25.	4912/2/2015	Administrative High Court of  Bucharest Court of Appeal  ICCJ	Claimer	Court of Auditors	Measure annulment  POLICIES D&O	Merits	<p><i>Merits</i></p> <p>Admits the request. Overrules the inadmissibility solution of the partial annulment petition of the control report no.4371/10.07.2015. Admits the action. Partially annuls Resolution no.59/17.07.2015, issued by the defendant</p>	The court will establish a hearing.



## ANNUAL REPORT 2017

Run. No.	Case number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
							<p>regarding pt.10, Decision no. 16/11.05.2015 issued by the defendant regarding the measure disposed at pt.II.12 from the resolution, as well as pt. 3.1.10 from Control Report no.4371/10.04.2015 issued by the defendant. With appeal within 15 days of the intimation. Resolution no. 173/26.01.2016.</p> <p><i>Appeal</i></p>	
26.	4946/2/2015	Administrative High Court of Bucharest Court of Appeal	Claimer	Court of Auditors intervener General Concrete	Measure annulment  GENERAL CONCRETE	Merits	<p><i>Merits</i></p> <p>In relation to the absence of the expertise report, delays the case and reissues a letter to the expert under the sanction of applying a judiciary fine according to art. 187 of the Civil Procedure Code for not submitting the report in due time. Resolution 09.06.2017.</p>	20.04.2018
27.	4958/2/2015	Administrative High Court of Bucharest Court of Appeal	Claimer	Court of Auditors	Measure annulment  NON-RESIDENTS	Merits	<p><i>Merits</i></p> <p>Admits the action. Partially annuls resolution no. 59/17.07.2015, respectively regarding the rejection of section VI from the litigation no.6420/28.05.2015 and, consequently,</p>	The court will establish a hearing.

## ANNUAL REPORT 2017

Run. No.	Case number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
		ICCJ					annuls the measure taken at pt. II.8 from the decision no. 16/11.05.2015 for removing the error presented at pt. 3 from the same resolution, as well as pt. 3.1.3 from the Control Report no.4371/10.04.2005. With appeal within 15 days of the intimation, the application for exercise of attack approach to be submitted at Bucharest Court of Appeal - Section VIII Administrative Legal and Fiscal. Pronounced March 10th, 2016.  <i>Appeal</i>	
28.	4964/2/2015	Administrative High Court of Bucharest Court of Appeal  ICCJ	Claimer	Court of Auditors	Measure annulment  JUDGMENTS	Merits	<i>Merits</i>  Accepts the exception un acceptability for the end of request regarding the cancellation of point 3.1.7 of Control Report no. 4371/10.04.2015 invoked by the claimant. Dismisses as inadmissible the request for annulment of section 3.1.7 from Control Report No. 4371/ 10.04.2015. Dismisses as groundless the redundant actions. With appeal within 15 days from the intimation. The appeal shall be lodged with the Bucharest Court of Appeal. Resolution no. 373/ 09.02.2016.	The court will establish a hearing.

## ANNUAL REPORT 2017

Run. No.	Case number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
							<i>Appeal</i>	
29.	4965/2/2015	Administrative High Court of Bucharest Court of Appeal  ICCJ	Claimer	Court of Auditors	Measure annulment  MICROSOFT	Merits	<i>Merits:</i>  Admits the petition, regarding points 1 and 2. Admits in part resolution no. 59/17.07.2015 and judgment no. 16/11.05.2015 on section 11 of the resolution, namely the measure adopted under point II.13 of the resolution. Overrules as inadmissible pt. 3, regarding the partial annulment of the control report no. 4371/10.04.2015. With appeal within 15 days of the intimation. The appeal will be submitted with the CAB - Section VIII. Resolution no. 236/ 28.01.2016.	The court will establish a hearing.
30.	45494/3/2015	Bucharest Court  Section VI  party	Claimer  asked to pay a security	Managers S.N. Nuclearelectrica S.A. and AGA members.	Prejudice 708,407 lei.  Execution of the measure disposed by the CC through the 2012 report on D&O policies.	Merits	<i>Merits</i>  Rejects the exception of the invoked procedure quality by the claimants Grama Mioara, Popescu Lucia -Ioana, Chiriac Cristiana and Serbanescu Cristian Ovidiu. Admits the prescription exception. Dismisses the request, stating as prescribed the right to action. Dismisses the application of calling in warranty as left without object. Compels the claimer	The court will establish a hearing.

## ANNUAL REPORT 2017

Run. No.	Case number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
							to pay the following trial expenses: 8,226.53 lei towards the respondent Grama Mioara, 7,873.53 lei towards the respondent Popescu Lucia - Ioana and 7,925.79 lei towards the respondent Chiriac Cristiana. With appeal within 30 de days from the intimation. Resolution no. 7583/29.11.2016.  <i>Appeal</i>	
31.	1367/2/2016	Administrative High Court of Bucharest Court of Appeal  ICCJ	Claimer	ANAF	Cancellation administrative act Decision no.25/29.01.2016.	Merits	<i>Merits</i>  Dismisses the action as groundless. With appeal within 15 days of the intimation. Resolution no. 2656/ 21.09.2016.  <i>Appeal</i>	The court will establish a hearing.
32.	409/2/2016	Bucharest Court of Appeal	Civil Party	Tudor Ion  Crime group  House of insolvency Banat liquidator at CET Energoterm Resita	Tax evasion offenses, bribery, corrupt practices lei 580,974.21 lei.	Merits	Procedure in progress.	16.04.2018

# ANNUAL REPORT 2017

Run. No.	Case number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
33.	6874/3/2016	Court of Law Bucharest	Respondent	Nuclear Agency and for Radioactive Waste (ANDR)	<p>Claims 131,080.08 euros contributions according to HG [Government Decision] no. 1080/2007 for 2010 - 2012.</p> <p>Contributions for the 2013-2015 for the energy difference produced and the delivered one in SEN.</p> <p>Penalties 2010 - 2015 until the actual payment.</p>	Merits	<p><i>Merits</i></p> <p>Rejects the exception of the prescription of the material right to action as ungrounded. Rejects the summons as ungrounded. With a right of appeal within 30 days of communication.</p> <p><i>Appeal</i></p> <p>Dismisses the appeal as groundless. With appeal within 30 days from issuance Resolution no. 2006/27.11.2017.</p> <p><i>Appeal</i></p>	The hearing is next.
34.	9230/3/2016	Bucharest Court Section II	Respondent	Greenpeace CEE Romania	Communication of information in public interest Support letter Project Units 3 and 4.	Merits	<p>Accessory intervention request in the interest of the defendant the Ministry of Energy.</p> <p><i>Merits</i></p> <p>Dismisses the application as groundless. Admits the request of accessory intervention in favor of the respondent. With appeal</p>	Judgment not drafted yet.

## ANNUAL REPORT 2017

Run. No.	Case number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
							within 15 days of the intimation. Resolution no. 6924/05.12.2016.	
35.	1704/3/2017	Penal Bucharest Court Section II	Claimer	Civitas P.S.G. SRL	Public procurement litigation.	Merits	<p><i>Merits</i></p> <p>Rejects the exception of the inadmissibility of the request, invoked by the defendant-plaintiff. Approves the exception of the absence of interest of the request, invoked by the defendant - plaintiff. Rejects the request of the defendant - plaintiff as unsubstantiated. Rejects the counterclaim. Rejects the request of the defendant - plaintiff for sanctioning the plaintiff - defendant. Approves the return request formulated by the defendant - plaintiff CIVITAS P.S.G. S.R.L. Orders the return to the defendant - plaintiff CIVITAS P.S.G. S.R.L. the amount of 4,797.6 lei paid as judicial stamp tax. With appeal within 10 days of the intimation. Resolution no. 3878/20.06.2017.</p> <p><i>Appeal</i></p>	24.04.2018
36.	41419/3/2016	Civil Bucharest Court of Law Section II	Plaintiff - Defendant	Energio Securent S.R.L	<p>SNN claims: Lei 330,074.32.</p> <p>Claims Energio Securent:  Lei 2,206,539.80.</p>	Merits	<p><i>Merits</i></p> <p>Management of the evidence with accounting expertise.</p>	10.04.2018



# ANNUAL REPORT 2017

Run. No.	Case number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
37.	5802/118/2017	Labor Constanța Court	Respondent	Union CNE Cernavoda for 757 employees	Monetary rights Hazardous condition bonus	Merits		03.05.2018
38.	7036/118/2017	Labor Constanța Court	Respondent	Free Union Energetica Nucleara '90 Cernavoda for 132 employees and 159 claimants on their own behalf	Monetary rights Hazardous condition bonus	Merits		19.04.2018

Item no.	File number	Litigation nature/ Court	SNN title	Opposing party	Value	Stage	Description	Term
Cernavoda NPP Branch								

## ANNUAL REPORT 2017

1.	10673/118/2010	Civil/ Court of Appeal of Constanta	Appellee Defendant	Sava Marian	Compensations	Appeal	<p><i>Merits</i></p> <p>Dismisses as groundless the exceptions of action inadmissibility of active procedural quality lack and of passive procedural quality lack, invoked by the respondent SNN. Nuclearelectrica S.A. Approves the exception of lateness for the modification of the passive lawsuit framework. Dismisses as tardy formulated the claimer's request on procedural passive circumstance. Find without object the lack of procedural capacity exception of the Local Council of Cernavodă. Rejects as unsubstantiated the application for filing a lawsuit by plaintiff Sava Marian against defendant S.N. Nuclearelectrica S.A. Rejects as unsubstantiated the guarantee application formulated by defendant S.N. Nuclearelectrica S.A. against defendants the City of Cernavoda by the Mayor and the Mayor of Cernavoda. Obligates the claimer Sava Marian to pay the amount of 27,003.33 lei to the respondent S.N. Nuclearelectrica S.A. representing trial expenses (legal fee stamp, stamp fee, expert fee). With appeal within 15 days of the intimation. Civil Sentence No. 603/14.03.2016. Appeal was formulated.</p> <p><i>Appeal</i></p> <p>Partially approved, by civil judgment no. 196/22.03.2017, cancels in part the appealed judgment regarding the lateness exception for the application regarding the modification of the passive lawsuit framework. Rejects as unsubstantiated the lateness exception application for modifying the passive lawsuit framework and retrials the writ of summons formulated against the defendants the Local Council of Cernavoda and the City of Cernavoda orders: Rejects the exception of the absence of lawsuit capability of the Local Council of Cernavoda as unsubstantiated. Rejects the writ of summons formulated against the defendants the Local Council of Cernavoda and the City of Cernavoda as groundless. Maintains the other provisions of the appealed judgment of</p>	The hearing is next.
----	----------------	---	-----------------------	-------------	---------------	--------	--	----------------------



## ANNUAL REPORT 2017

							Civil Judgment no. 196/22.03.2017. Final. With appeal within 15 days of the intimation. Resolution no. 196/22.03.2017.  <i>Appeal</i>  Resolution no. 341: rejects the appeal formulated by the appeal plaintiff Sava Marian against civil judgment no. 196 of March 22, 2017, issued by the Court of Appeal of Constanta - Civil Section II, administrative and fiscal division, as unsubstantiated. Final.	
2.	14951/118/2011 (Suspended based on art. 36 of the Law no. 85/2006)	Civil/ Medgidia Court	Claimer	S.C. Car Construct S.R.L.	Land release SNN - property - concrete platform occupied by S.C. CAR CONSTRUCT S.R.L., based on sale-purchase contract concluded with S.C. CNE S.A.	Merits	According to Art. 36 of the Law no. 85/2006 (Insolvency law): was suspended the trial of the case.	Suspended.

## APPENDIX IX: STAGE OF THE CORPORATE GOVERNANCE CODE IMPLEMENTATION OF BUCHAREST STOCK EXCHANGE

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
A.1	All companies must have an internal regulation of the Board which shall include the terms of reference/responsibilities of the Council and key management functions of the company, and that applies, inter alia, the General Principles from Section A.	<p>SNN has an organization and operation Internal Regulation of the Board of Directors and a Corporate Governance Regulation, which contains the terms of reference, the responsibilities of the executive management, the Board of Directors and AGA and key management functions and responsibilities of the Advisory Committees of the Board of Directors in accordance with the General principles in the Corporate Governance Code.</p> <p>These terms of reference/responsibilities are brought to the knowledge of the public through the Organization and Operation Regulations of the Board of Directors and through the Governance Regulations, published on the company's website within the section "Investor Relations/Corporate Governance".</p>			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
A.2	Provisions for management of conflicts of interest must be included in the Council regulation. In any case, Board members must notify the Council of any conflicts of interest that have arisen or may arise and to refrain from participating in discussions (including by the default, except that the fault would prevent the formation of the quorum) and to vote for the adoption of a resolution concerning the matter which gives birth to the conflict of interest question.	The provisions regarding the management of conflicts of interests are included in the Organization and Operation Regulations of the Board of Directors and the Corporate Governance Regulations, published on the SNN site. Regarding the management of conflicts of interests, each member of the Board of Directors ensures the avoidance of a direct or indirect conflict of interests with the Company, and in case of occurrence of such conflict it refrains from debates and vote on the respective issues, according to the current legal provisions.			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
A.3	The Board of Directors or the Supervisory Board should be composed of at least five members.	SNN's Board of Directors consists of 7 members. Information relating to this BoD component is published in the Annual Report, in the Organization and Operation Regulations of the Board of Directors and on the website within the section "Investor Relations/Board of Directors".			
A.4	The majority of the members of the Board of Directors must not have executive function. At least one member of the Board of Directors or of the Supervisory Board must be independent in case of Standard Category Companies. In the case of Premium Category companies, no less than two non-executive members of the Board of Directors or of the Supervisory Board must be independent. Each independent member of the Board of Directors or of the Supervisory Board, as the case may be, must submit an affidavit at the time of his appointment in view of election or re-election, as well as when it occurs any change in its status, indicating elements in	SNN is a company in the Premium Category, administered by a provisional Board of Directors on 31.12.2017, formed of 7 non-executive members, 3 of the 7 members of the Board of Directors being independent according to the criteria from Section A. In 2017, the members of the Board of Directors appointed for provisional mandates submitted their independence statements based on the criteria referred to under Art. 138 <sup>2</sup> par. 2. of Companies Law no. 31/1990 and based on the criteria referred to under pt. A4 of the corporate governance Code of the Bucharest Stock Exchange. The Annual Report presents in			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
	which it is considered that he is independent from the point of view of his character and judgment.	chapter "Corporate Governance Statement" information relating to the status of independent member of the Board of Directors members. Also this information is published on the website of SNN.			
A.5	Other professional commitments and obligations relatively permanent of a member of the Council, including executive and non-executive positions in the Board of some companies and non-profit institutions, must be disclosed to shareholders and potential investors prior to appointment and in the course of his mandate.	The Annual Report presents in the section "corporate governance Statement" information on other professional commitments and obligations of the members of the Board of Directors, including executive and non-executive positions in the Board of other companies. This information is also available on the website of SNN, in the section "Investor Relations/corporate Governance/Board of Directors".			

## ANNUAL REPORT 2017

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
A.6	Any member of the Council must submit to the Council any information relative to any relation with a shareholder who owns shares directly or indirectly representing over 5% of all voting rights. This obligation refers to any relation that may affect the member's position with regard to issues determined by the Council.	<p>This provision is included in the Organization and Operation Regulations of the Board of Directors.</p> <p>The information related to the relationships with investors holding directly and indirectly over 5% of the SNN shares have been checked on the basis of statements according to the criteria stipulated in Art.138<sup>2</sup> par. 2 from Companies Law No. 31/1990 and on the basis of the criteria referred to under pt. A4 of the corporate governance Code of the Bucharest Stock Exchange. In 2017, two members of the Board of Directors were employees of the Ministry of Energy, shareholder who directly owns more than 5% of all voting rights: Iulian-Robert Tudorache and Elena Popescu. Also, Mr. Critian Gentea is the General Manager of RATEN, entity 100% owned by the Romanian state, majority shareholder of SNN, whilst Mr. Dragost Ionut Banescu holds the position of General Secretary within the</p>			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
		Ministry of Labor, Family, Social Protection and Elderly			
A.7	The company must appoint a Secretary of the Board in charge of supporting the activity of the Council.	The name of the Secretary of the Board of Directors is published in the SNN Annual Report for the year 2017, in the section "Corporate Governance Statement"			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
A.8	<p>Statement regarding corporate governance will inform if an assessment has taken place under the leadership of the Chairman of the Council or of the Nomination Committee and, if so, will summarize the key measures and changes resulting.</p> <p>The company should have a policy/guidelines regarding the Committee evaluation including aim, criteria and frequency of the evaluation process.</p>	<p>The activity of the Board of Directors was assessed in term I, based on the performance criteria comprised in the Administration Plan and in the mandate contracts of the administrators whose mandate expired on 25.04.2017</p> <p>The provisional members of the Board of Directors have not adopted an administration plan and performance criteria, these legal provisions only being applicable to the Boards of Directors selected based on the criteria of GEO 109/2011 for a period of 4 years.</p>	<p>The company does not have a policy/guideline for the assessment of the activity of the Board of Directors, such shall be adopted following the completion of the selection procedure for the members of the Board of Directors for a mandate of 4 years.</p>		<p>SNN will transmit the current compliance report with this provision after the elaboration of the assessment policy/guideline.</p>
A.9	<p>The statement regarding the corporate governance should contain information on the number of meetings of the Council and committees during the last year, the participation of administrators (present and absent) and a report of the Council and the committees with regard to their activities.</p>	<p>The Annual Report for 2017 contains information about the number of sessions of the Board of Directors in 2017 as well as about the participation of administrators in the section "Corporate Governance Statement". The Reports of advisory committees established within the Board of Directors are also presented in the Annual Report for the year 2017.</p>			



**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
A.10	The statement regarding the corporate governance shall contain information about the exact number of independent members from the Board of Directors or from the Supervisory Board.	The Annual Report for 2017 presents the exact number of independent members, in the section "Corporate Governance Statement".			
A.11	The Council of Premium Category companies must establish a Nominating Committee consisting of persons without executive functions, which will lead the procedure of appointment of new members in the Council and will make recommendations to the Council. The majority of the Nomination Committee members must be independent.	At the level of SNN there is a Nomination and Remuneration Committee established in 2013. The Nominating Committee component is presented on the website and in the Annual Report of the Company. The members of the Nomination and Remuneration Committee are non-executive members.	A single member of the Nomination and Remuneration Committee is an independent non-executive administrator		

## ANNUAL REPORT 2017

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
	The terms of reference of the Nomination Committee shall include a provision that the Nominating Committee will be composed of persons without executive functions, and will lead the nomination procedure for new members in the Council and will make recommendations to the Council.	This provision exists in the Nomination and Remuneration Regulation of the Committee. Members of the Nomination Committee are non-executive.			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
B.1	The Council is required to establish an audit committee in which at least one member must be an independent non-executive administrator. The majority of members, including the Chairman, must prove that they have adequate qualifications relevant to the functions and responsibilities of the Committee. At least one member of the audit committee must have accounting or auditing experience proven and appropriate. In the case of Premium Category Companies, the audit committee must be composed of at least three members and the majority of the audit committee members must be independent.	At the level of SNN there is an Audit Committee of set up in 2013. The Audit Committee consists of 3 members, all with relevant experience in the field. The Audit Committee's component is published on the website of SNN, at the Corporate Governance section. On 31.12.2017, all the members of the Audit Committee are independent non-executive administrators.			
B.2	The Chairman of the audit committee must be a non-executive independent member .	The Chairman of the Audit Committee is an independent non-executive member - Mr Sebastian Gabriel Tcaciuc. This information is presented in the Annual Report for the year 2017.			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
B.3	In the framework of its responsibilities, the audit committee must conduct an annual assessment of internal control system.	<p>This provision is stipulated in the Organization and Functioning Regulation of the Audit Committee published on the website of the SNN in the Corporate Governance section.</p> <p>Information on the annual assessment of internal control system are set out in the Audit Committee report of the "Statement of corporate governance".</p>			
	If the Audit Committee reviewed the internal control system, taking into account the effectiveness and scope of the internal audit function, the adequacy degree of the risk management and internal control reports and submitted to the Audit Committee of the Board and the promptness and efficiency with which the executive leadership solves the problems or deficiencies identified as a result of its internal control and presented relevant reports submitted to the attention of the Council.	The Annual Report contains information about the work of control and assessment conducted by the Audit Committee.			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
B.4	The assessment must take into account the effectiveness and scope of the internal audit function, the adequacy degree of the risk management and internal control reports submitted to the Audit Committee of the Board, the promptness and efficiency with which the executive leadership solves the deficiencies or the weaknesses identified as a result of its internal control and	The Annual Report contains information about the work of control and assessment conducted by the Audit Committee (the number of internal audit missions, their subjects, the number of meetings of the Audit Committee, information on the issues discussed, information about the risk management, how to solve the identified problems), in accordance with			

## ANNUAL REPORT 2017

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
	the submission of relevant reports to the attention of the Council.	the Organization and Functioning Regulation of the Audit Committee.			
B.5	The Audit Committee must assess the conflicts of interest in relation to the transactions of the company and its subsidiaries with affiliated parties. Information on the number and value of transactions with affiliated parties.	This activity is carried out on the basis of monitoring the Company's compliance with the provisions of the Articles of Incorporation, legal framework and applicable normative documents concerning transactions with related parties as defined in the Organization and Functioning Regulation of the Audit Committee. In the year 2017, the Audit Committee has assessed the Company's transactions and found that there were no situations of conflict of interest, which is stated in the Annual Report 2017. The Annual Report contains in Annex VII the list of transactions with affiliated parties within that year.			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
B.6	The Audit Committee must assess the effectiveness of internal control system and of the risk management system.	This provision is contained in the Organization and Functioning Regulation of the Audit Committee. The result of evaluating the effectiveness of the internal control system and of the risk's management system is contained in the Annual Report.			
B.7	The audit committee must monitor the application of the legal and internal audit standards generally accepted. The audit committee shall be to receive and to assess reports from the internal audit team.	The audit committee has provided the obligation of applying the legal standards and standards for internal audit as well as evaluation reports of the internal audit team in the Organization and Operation Regulation.			
B.8	Whenever the Code mentions reports or analyses of Audit Committee, they should be followed by periodic (at least annually) or ad-hoc reports to be forwarded to the Council at a later date.	The Annual Report contains a list of the documents prepared or verified by the Audit Committee which were submitted for approval to the Board of Directors, in the section "corporate governance Statement".			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
B.9	Any shareholder may not be given preferential treatment over other shareholders in connection with transactions and agreements concluded by the company with shareholders and their affiliates.	Policy on transactions with affiliated parties displayed on the website of SNN provides equal treatment for all shareholders in connection with the transactions and agreements concluded by the Company with the shareholders or their affiliates.			
B.10	The Council is required to adopt a policy to ensure that any transaction of the company with any of the companies with which it has closed relations whose value is equal to or more than 5% of the net assets of the company (according to the latest financial report) is approved by the Council following a mandatory opinion of the Audit Committee of the Board and disclosed to shareholders and potential investors in the right way, insofar as such transactions fall into the category of events which are subjected to reporting requirements.	The Articles of incorporation and the Organization and Operation regulations of the Board of Directors provide for the approval by the Board of Directors of any transaction of the company with any of the companies with which it has close relationships, whose value equals or exceeds 5% of the company's net assets (according to the latest financial report), following a binding opinion of the Board's Audit Committee and correctly disclosed to shareholders and potential investors, to the extent that these transactions fall within the category of events subject to reporting requirements ... For transactions with unaffiliated parties the limit of competence			



## ANNUAL REPORT 2017

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
		<p>of the Management Board is for contracts over 5 million Euros.</p> <p>According to the Articles of Incorporation, contracts with a value of more than 50 million Euros are approved by the Board of Directors and approved by the AGA. These provisions are included in the policy regarding transactions with affiliated parties displayed on SNN's website.</p>			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
B.11	Internal audits shall be carried out by a separate structural division (Internal Auditing Department) of the company or by engaging a third independent entity. Descriptive report of the Chairman of the Audit Committee (on the assessment of the Internal Audit Department and the reporting to the designate Director of the Department of Internal Audit).	SNN has its own Audit Department. The Annual Report contains a section dedicated to the Audit Committee in the context of the "Statement of Corporate Governance" in which it is presented and evaluated the audit activity at the level of the Company.			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
B.12	In order to ensure the fulfillment of the main functions of the Internal Audit Department, it must report the functional point of view towards the Council through the Audit Committee. For administrative purposes within management's responsibilities to monitor and reduce the risks, it must report directly to the General Manager.	Reporting lines are followed exactly. Audit Department reports to the General Manager and to the Management Board.			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
C.1	<p>The company must publish on its website the remuneration policy and to include a statement in the Annual Report on the implementation of the remuneration policy in the annual period under review. Remuneration policy should be formulated so as to allow shareholders the understanding of the principles and arguments underlying remuneration of Board members and the General Manager and the members of the Executive Board in the two-tier system. It must describe how the process and decision making regarding remuneration is done, to detail the components of the remuneration to executive management (such as salaries, annual bonuses, long-term incentives tied to the value of the shares, benefits in nature, pensions and others) and to describe the purpose, principles and the underlying of each component (including the general criteria for any performance related to any variable remuneration). In</p>	<p>The remuneration policy is published on the website of the company and is included in the Annual Report. Nomination and remuneration Committee performs an annual report that is submitted to the opinion of the Board of Directors and to the approval of the AGA. The Nomination and Remuneration Committee Report contains information about the principles and arguments that form the basis of the remuneration of members of the Board of Directors, the manner of processing and decision-making concerning the remuneration, the detail of remuneration components, detailing the purpose and method of calculating each sub-components, performance criteria and the degree of achievement of all these. The report also contains information relating to the period of notice and compensation for revocation without a just cause. The Nomination and Remuneration Committee Report for the year 2017 is an</p>			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
	<p>addition, the remuneration policy must specify the length of the agreement to the Executive Director and of the period of notice stipulated in the agreement, as well as possible compensation for revocation without a just cause.            [...] Any essential change occurred in remuneration policy shall be published in due course on the company's website.</p>	<p>integral part of the Annual Report.</p>			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
D.1	The Company must organize an Investor Relations service - made known to the public by the person/persons in charge or as an organizational unit. In addition to the information required by law, the company must include on its website a section dedicated to the Relations with Investors, in Romanian and English, with all relevant information of interest to investors, including:	SNN has a structure specially designed for interacting with investors - Communication and Investor Relations Department within the Legal and Corporate Affairs Department. All materials published on the website of SNN in "Investor Relations" section are translated also in English.			
D.1.1	Main corporate regulations: articles of incorporation, procedures relating to General Meetings of Shareholders.	The Articles of Incorporation and the procedure regarding the organization and performance of the General Meetings of Shareholders are published in bilingual form on the SNN site within the section "Investor Relations/Corporate Governance".			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
	The terms of reference of the Board and committees of the Council.	The terms of reference of the Board and Committees of the Council are published on the company's website on the Investor Relations/Corporate governance section.			
	The rules and procedures of the AGA.	Materials published on the company's website in the "Investor Relations-Information about AGA".			
D.1.2	Professional CVs of the members of the management organs of the company, other professional engagements of Board members, including executive and nonexecutive positions on boards of Directors in companies or non-profit institutions.	CVs of the members of the Board are published on the company's website. Presentation of the members of the Board of Directors on SNN website and of this Annual Report includes non-executive and executive positions owned by them and other professional commitments owned in other companies.			
D.1.3	Current reports and periodic reports (quarterly, half-yearly and annual) - at least the ones stipulated in section D.8 - including current reports with detailed information pertaining to non-conformity with this code.	Current reports including periodic reports (quarterly, half-yearly and annual) are published on the website of SNN, in section Corporate Governance and contain information pertain to this provision. The current report			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
		regarding nonconformities and also the current subsequent reports concerning but the compliance will be published on the site.			
D.1.4	Information on general meetings of the shareholders: agenda and information materials; the procedure for electing the members of the Council; the arguments that support the proposals for candidates for election into the Council, together with their professional resumes; shareholders inquiries concerning items on the agenda and the company answers, including adopted resolutions .	Information published on the website in the section "Corporate Governance/information about AGA".			
D.1.5	Information on corporate events, such as the payment of dividends and other distributions to shareholders, or other events leading to acquisition or limitations on rights of a shareholder, including deadlines and principles applied in these operations. The information	All this information is published on the company's website in the sections "Investor Relations/Dividends".			



**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
	will be published in a period that will allow investors to adopt investment decisions.				
D.1.6	The name and contact details of a person who will be able to provide, upon request, relevant information.	Information is available on the website in the "Investor Relations" section. Information is available in the Annual Report.			
D.1.7	Company presentations (e.g. presentations for investors, the quarterly results presentations, etc.), financial statements (quarterly, biannually, annually), audit reports and annual reports.	The presentations made on the occasion of the publication of quarterly and half-yearly financial results and/or during meetings with investors/analysts are published on the site, in the section "Investor Relations/Presentations", accompanied by the audio recordings of the meetings and teleconferences. Half-yearly and annual financial statements are accompanied by an Audit Report.			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
D.2	<p>The company will have an annual distribution of policy dividends or other benefits shareholders, proposed by the Director General or Directorship and adopted by the Council in the form of a set of guidelines which the company intends to follow with respect to the distribution of net profit.</p> <p>Annual policy principles of distribution toward the shareholders will be published on the website of the company.</p>	<p>SNN does not have a multi annual dividend policy, but it subjects to the approval of the GMS on a yearly basis the proposal regarding the distribution of profits.</p> <p>Information regarding the payment of dividends for the years 2013, 2014, 2015, 2016 and 2017 (additional dividends) are posted on SNN website, section "Investor Relations".</p> <p>Distribution of net profit for previous years is also published on the company's website in the "Investor Relations/Information on AGA".</p>			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
D.3	<p>The company will adopt a policy in relation to the forecasts, either as they are made public or not. Forecast refers to the quantifiable conclusions of some studies which concerns the establishment of the global impact of a number of factors relating to a future period (so called hypotheses):by its nature, this projection has a high level of uncertainty, the actual results can differ significantly from the initially presented forecasts. Policy regarding the forecasts will set the frequency, timing and content of the actual forecast. If they're published, forecasts may be included only in annually, quarterly or half-yearly reports. Policy regarding the forecasts will be published on the website of the company.</p>		<p>SNN does not have a policy regarding forecasts, because input data and estimated related to the development of SNN's financial results depend to a large extent on the evolution of the price on the energy market. SNN is a participant on the energy market, not a price former, thus the forecasts regarding the evolution of this market and implicitly the financial results and the price of SNN shares would have a high degree of uncertainty</p>		

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
D.4	General Meetings of Shareholders rules should not limit the participation of shareholders at general meetings and the exercise of their rights. Rules changes will come into force at the earliest, starting with the next meeting of shareholders. Rules changes will come into force at the earliest, starting the next General Meeting of Shareholders.	Organization and conduct Regulation of the General Meetings of Shareholders SNN guarantees shareholders' rights according to the relevant legislation and ensures equal treatment thereof. The Regulation is published on the SNN website in the section dedicated to the GSM. Changes to Regulation were posted in the News section to be viewed by a large number of visitors, quickly. The changes took effect at the next General Board, after their approval in SNN Board..			
D.5	External auditors will be present at the General Meeting of Shareholders when their reports are presented at these meetings.	At SNN General Meeting of Shareholders dated April 24, 2017 for presenting and approving the Activity Annual Report of the company, the representatives of the SNN auditor have also been present.			

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
D.6	The Council will present to the annual General Meeting of Shareholders a brief assessment of the internal control systems and management of significant risks and opinions on issues subjected to the decision of the General Board.	This information is contained in the chapters "Risk management activity" and "Financial reporting, internal control and risk management" in the Annual Report of the Board subdued to AGM approval			
D.7	Any specialist, consultant, expert or financial analyst may participate in the shareholders meeting under a prior invitation from the Council. Accredited journalists can also attend the general meeting of shareholders, unless the Chairman of the Board decides otherwise.	These provisions are included in the Organization and Performance Regulations of General Meetings of Shareholders of SNN - updated at the level of June 2017 with the Decision of the Board of Directors of SNN number 90/08.06.2017			.

**ANNUAL REPORT 2017**

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
D.8	Financial quarterly and biannual reports include information both in Romanian and in English on the key factors influencing changes at the level of sales, operating profit, net profit and other relevant financial indicators from a quarter to another and from a year to the next one.	Financial quarterly and biannual reports include information both in Romanian and in English on the key factors influencing changes at the level of sales, operating profit, net profit and other relevant financial indicators from a quarter to another and from a year to the next one.			
D.9	A company will organize at least two meetings/teleconferences with analysts and investors every year. Information presented on these occasions will be published in the Investor Relations section of the company website on meetings/teleconferences date.	SNN organized 4 teleconferences and a face-to-face meeting with the investors, financial analysts, brokers etc. in 2017. According to the financial calendar for 2018, SNN will organize 5 meetings with financial analysts, with one meeting being face-to-face.			

## ANNUAL REPORT 2017

No.	Code Provision	Observes	Does not observe or observes in part	Reason for non-compliance	Rectification Terms
D.10	If a company supports various forms of artistic and cultural expression, sports, educational or scientific activities and considers that their impact on the innovative nature and competitiveness of the company are part of its mission and development strategy, will publish the policy on its activity in this area.	<p>SNN published on its website the statement of corporate social responsibility based on which the company conducts support and development of the local community, cultural activities, young talented, research and scientific activity.</p> <p>Also, the Annual Report contains information on the policy applied by SNN in corporate social responsibility.</p> <p>SNN publishes annually on their website the list of the sponsorship made in the previous year.</p>			

## APPENDIX X: NOMINATION AND REMUNERATION COMMITTEE REPORT FOR 2017

### *Introduction*

The Nomination and Remuneration Committee ("NRC") within the Board of Directors of SNN was established with the Decision of the Board of Directors no. 7/26.04.2013, based on the provisions of art. 140<sup>2</sup> of Law no. 31/1990 republished, regarding trading companies, as amended and supplemented to date and based on the provisions of art. 34 of Government Emergency Ordinance no. 109/2011 regarding corporate governance of public enterprises, corroborated with the dispositions of art. 19 par. 2 of the SNN updated Articles of Association.

NRC is a permanent committee with an advisory capacity, reporting directly to the Board of SNN, with powers of evaluation, consultation and development of proposals in the nomination of Board members, the Company's Directors whom are delegated management responsibilities to, as well as their remuneration in accordance with the legal regulations in force. NRC conducts investigations and prepares recommendations for the Board of Directors regarding the remuneration of directors, managers and staff or for appointment of the candidates for various management positions.

According to the provisions of art. 55 par. 2 and 3 of the Government Emergency Ordinance no. 109/2011, NRC has the obligation to present to the General Meeting of Shareholders an annual report on the remunerations and other benefits granted to managers and directors during the financial year.

### *Organization*

NRC is composed of three appointed members among the members of the Board of Directors, the mandate of each member of this committee being valid for the period in which they have the quality of managers within the Board of SNN.

For the proper performance of the duties incumbent and a good organization, the Nomination and Remuneration Advisory Committee drafted and approved by Resolution no. 1/26.04.2013 its own Organization and Operation Regulations, approved by the Board of Directors' Resolution no. 7/26.04.2013.

As per the resolution no. 30/13.03.2015, the Board of Directors of SNN approved a single Organization and Operation Regulations for all the Advisory Committees.

Decisions in the NRC are taken by simple majority of participating members (or represented) at the meeting and are, for the Board of Directors, as recommendations, not mandatory. Each member of the NRC express a vote, respectively "for", "against" or "abstain". For each meeting of the NRC a resolution that records at least the following is drawn: recommendation made by the Board of Directors, the arguments that led to the formulation of such recommendations, cast votes; the resolution shall be signed by the President and Secretary of the Committee.



## ANNUAL REPORT 2017

NRC meets whenever necessary. When a vacancy is created within the NCR, a new member is appointed by resolution of the Board of Directors. Board members which are removed from their appointment automatically lose their membership in the Committees they were part of.

At the proposal of the President or members of consultative Committees, the Board may approve the hiring of independent external permanent experts, physical or legal persons, specialists in the fields of activity of the Committees which to assist their members in their work, also establishing the remuneration of these experts.

### *NRC Meetings in 2017*

In 2017, NRC of the Board of SNN met in 10 sessions in which they developed recommendations to the Board of SNN on themes within the scope of its responsibilities as follows:

- ❖ Endorsement of the fixed allowance for the non-executive members of the Board of Directors, for the value of Lei 9,126, allowance that shall not exceed twice the average of the last 12 months of the monthly gross average wage for the activity performed according to the main object of activity in compliance with the provisions of art. 37 par. (2) of GEO no. 109/2011, as subsequently amended and supplemented and the approval of the fixed allowance for the executive members of the Board of Directors, for the value of Lei 27,378, allowance that shall not exceed six times the average of the last 12 months of the monthly gross average wage for the activity performed according to the main object of activity registered by the company in compliance with the provisions of art. 37 par. (3) of GEO no. 109/2011, as further amended and supplemented, in view of subjecting to the approval of the General Meeting of Shareholders.
- ❖ Endorsement of the limits of the fixed monthly gross allowance of the directors appointed after April 26, 2017 who are not also members of the Board of Directors, in the interval included between 5 or 6 times the average value of the last 12 months of the monthly gross average wage for the activity performed according to the main object of activity registered by the Company, as well as the approval of other benefits granted to any directors appointed after April 26, 2017, in compliance with the provisions of art. 153 index 18 of Law no. 31/1990, in view of subjecting to the approval of the General Meeting of Shareholders.
- ❖ Adopting a decision to conclude a provisional 4-month mandate contract for the General Manager of SNN and an addendum to the mandate contract between the General Manager and SNN, having as object the governing of certain aspects related to the termination of the mandate.
- ❖ Endorsement of the update of Appendix 1 and 1.1 to the mandate contract concluded between the Chief Financial Officer and SNN.
- ❖ Updating Appendix 1.1 and Appendix 1, as well as supplementing Appendix 1.1 to the mandate contract concluded between the General Manager and SNN.
- ❖ Appointment of Mr. Cosmin Ghita in the position of General Manager of SNN starting with September 2, 2017, with the conclusion of a provisional 4-month mandate contract.
- ❖ Approval of the amendment of the organizational chart of the Headquarters or of the Branches to be made based on the proposal of the General Manager by the Board of Directors.

## ANNUAL REPORT 2017

- ❖ Delegating the management of the company to the General Manager, the Chief Financial Officer and two Deputy General Managers.
- ❖ Appointment of Mr. Dan Laurentiu Tudor in the position of Deputy General Manager with the conclusion of a provisional 4-month mandate contract, responsible for the coordination of legal, human resources, procurement and corporate affairs activities.
- ❖ Appointment of Mr. Toni Viorel Lary in the position of Deputy General Manager with the conclusion of a provisional 4-month mandate contract, responsible for the coordination of the activities in the sector of investment and electricity transactions development.
- ❖ Appointment of Mr. Dumitriu Gabriel Adrian in the position of Chief Financial Officer with the conclusion of a provisional 4-month mandate contract.
- ❖ Appointment of Mr. Cosmin Ghita in the position of General Manager of SNN starting with January 3, 2018, with the conclusion of a provisional 4-month mandate contract.

### ***Information according to the provisions of art. 55 par. 2 and 3 of Government Emergency Ordinance no. 109/2011***

Pursuant to the provisions of art. 55 par. 2 and 3 of the Government Emergency Ordinance no. 109/2011, NRC has the obligation to present to the General Meeting of Shareholders an annual report on the remunerations and other benefits granted to managers and directors during the financial year.

NRC's annual report includes at least information on:

- (i) Remuneration structure, explaining the weight of the variable component and of the fixed component.
- (ii) The performance criteria that substantiates the variable remuneration component, the relationship between the performance and remuneration.
- (iii) The considerations that justify any scheme of annual bonuses or non-cash benefits.
- (iv) Any supplementary pension schemes or anticipation pension.
- (v) Information on contract duration, negotiated period of notice, the amount of damage - interests for the unjust revocation.

#### ***(i) The remuneration structure, explaining the share of variable weigh and the fixed component.***

SNN managers and directors receive for their work a monthly fixed salary and a variable compensation. The variable allowance is payable depending on the achievement of the indicators and performance criteria established in administration/mandate agreements, as they are taken from the administration/management plan. The fixed monthly allowance is capped in accordance with the law or Government Emergency Ordinance no. 109/2011. The fixed and variable allowance for the Board of Directors members is approved by the SNN GMS.

## ANNUAL REPORT 2017

The general meetings of the manager's allowances (manager according to Art. 143 of the Law no. 31/1990) are approved by the GMS; based on such general limits, the Board of Directors establishes the amount of the managers' allowance.

Policy and criteria for the remuneration of the directors and managers are published on the Company's website.

### ***Remuneration of Directors with mandate contract***

On April 30, 2017 the mandate contract no. 8/26.08.2013, concluded between SNN and Mrs. Daniela Lulache, acting as the General Manager, with the subsequent conclusion of provisional mandate contract no. 14, for a period of 4 months (01.05.2018 - 01.09.2018) between SNN and Mrs. Daniela Lulache and the provisional mandate contract no. 30 for a period of 4 months (02.09.2017 - 02.01.2018) between SNN and Mr. Cosmin Ghita.

The provisional mandate contracts concluded in 2017 with the General Manager of the Company do not provide for the granting of the variable component, as they are contracts concluded in compliance with the provisions of art. 64<sup>2</sup> of OUG 109/2011 for a provisional 4 months period.

The General Manager (for the mandate contract that was terminated in April 2017) and the Chief Financial Officer appointed for a period of 4 months as per the resolution of the BoD no. 10/24.01.2014 benefited, according to the mandate contracts concluded with the Company, of a variable allowance too, which included two sub-components:

1. Variable sub-component 1: had a gross maximum annual value equivalent of 12 gross monthly fixed allowances. The payment was made quarterly depending on the degree of fulfillment of indicators and performance criteria as set out in the mandate contracts. The quarterly payments of the quarterly tranches adjustment was done annually according to the Annual Indicator of fulfillment indicators and performance criteria.
2. Variable sub-component 2: had a maximum gross annual amount of 0.4% applied to the difference between the actual net profit realized and the estimated net profit for each financial year, but no more than 12 fixed monthly annual allowances. This sub-component was also granted according to the Annual Indicator of fulfillment of performance indicators and criteria.

Considering the termination of the General Manager's mandate contract on 30.04.2017, by the Decision of the Board of Directors no. 53/11.04.2017 the conclusion of an addendum to the Mandate Contract with the General Manager was approved following the approval of similar measures for the members of the Board of Directors whose mandate expired on 25.04.2017, which included the following:

- The payment of the first sub-component of the variable remuneration for April 2017 shall be made without the obligation of the principal to draft, submit and approve a Report related to the period in question, namely April 2017, within 30 days from the date when the financial and non-financial data for

## ANNUAL REPORT 2017

April 2017 are available. The calculation of performance indicators and criteria would be prepared by the Company based on the financial and non-financial data for April 2017, when such will be available, taking into account the degree of achievement of the performance indicators and criteria set by the mandate contracts.

- The remuneration related to the second sub-component of the variable component for 2017, corresponding to the period January-April 2017 for the General Manager, whose mandate is terminated on April 30, 2017 will have to be calculated, in this particular case, based on the "pro-rata" principle, as follows:

a) A first sub-component, to be determined by applying a percentage of 0.4% of the net profit achieved for the first three months of 2017 in relation to the net profit budgeted for the first three months of 2017. This sub-component shall be determined after the completion of the quarterly financial statements for the first quarter of 2017, based on the net profit reported for the first quarter of 2017, by comparing the net profit budgeted for the first three months of 2017 (according to the appendices to the budget) and shall be paid within maximum 30 days of the publication of the quarterly financial statements for the first quarter of 2017. In this case, this first sub-component of the second variable sub-component, related only to the first three months of 2017 (period of January to March 2017), shall be limited to, at maximum, to the fixed remuneration corresponding to the first three months.

b) A second sub-component, related to April 2017, to be determined by applying the "pro-rata" principle, shall be determined by applying a 4/6 share of the amount determined by applying a percentage of 0.4% of the excess of the net profit realized in the first six months of 2017 in relation to the net profit budgeted in the first six months of 2017, from which the first sub-component of the second variable sub-component II (the one determined according to pt. a) above and related to the first quarter 2017) shall be deducted. This second sub-component of the second variable sub-component shall be determined/established after the completion of the biannual financial statements for the first semester of 2017, based on the net profit reported for the first semester of 2017, by comparing the net profit budgeted for the first six months of 2017 (according to the appendices to the budget) and shall be paid within 30 days of the publication of the biannual financial statements for the first semester of 2017. The second variable sub-component for the period January-April 2017 will therefore be limited to the level of the fixed remuneration for the period January-April 2017.

### ***The remuneration of non-executive managers***

Non-executive members of the Board of SNN are entitled to receive a monthly fixed salary and a variable compensation.

The monthly gross fixed allowance of the members of the Board of Directors who concluded with the Company management contracts that were terminated in April 2017 was limited to the average of the last 12 months of the monthly average gross wage in the field in which the Company is operating, communicated by the National Institute of Statistics prior to such nomination, i.e. the amount of Lei 4,028 gross per month. By the Resolution No. 1/29.04.2015 a new value of gross fixed monthly

## ANNUAL REPORT 2017

allowance was approved, i.e. the amount of Lei 4,023, with effect starting on the date of the Resolution of the Board of Directors.

The gross monthly fixed allowance for the members of the Board of Directors with which the Company concluded management contracts in 2017 (starting with April 2017) was limited to twice the average of the monthly gross wage for the last 12 months for the activity performed according to the main object of activity registered by the Company, at class level, according to the classification of the activities in the national economy, communicated by the National Institute of Statistics, prior to the appointment.

Starting with April 2017, the company concluded provisional 4 months contracts with the members of the Board of Directors, including only the gross fixed monthly indemnity.

The table below presents the members of the BoD starting with April 2017 and their remuneration in relation to the mandate contract for 2017:

BoD member	Fixed indemnity	Mandate start date	Mandate termination date
Andreas Eva Georgeta	45.790	26.04.2017	26.08.2017
Anitei Mihai Daniel	9.476	28.12.2017	28.04.2018
Anton Cristian Romulus	83.102	26.04.2017	27.12.2017
Banica Cezarina Roxana	27.882	27.08.2017	17.10.2017
Banescu Dragos Ionut	28.224	27.10.2017	28.04.2018
Dima Cristian	9.476	28.12.2017	28.04.2018
Gentea Cristian	83.284	26.04.2017	28.04.2018
Marcu Mirel Alexandru	46.652	27.08.2017	28.04.2018
Misa Ionut	27.474	26.04.2017	29.06.2017
Popescu Elena	55.898	11.07.2017	28.04.2018
Tatar Florin Constantin	36.632	26.04.2017	11.07.2017
Tudorache Iulian Robert	83.284	26.04.2017	28.04.2018

The members of the Board of Directors with whom the Company had concluded management contracts that were terminated on 25 of April 2017 also benefited from a variable allowance, which included two sub-components:

1. Variable sub-component 1: had a maximum gross annual amount equal to the annual average gross earnings per energy branch for period for which the variable sub-component is paid. The payment was made quarterly depending on the degree of fulfillment of indicators and performance criteria as set out in the administration plan and the management contracts. The quarterly payments of the quarterly tranches adjustment was done annually according to the Annual Indicator of fulfillment indicators and performance criteria.

2. Variable sub-component 2: had a maximum gross annual amount of 0.4% applied to the difference between the actual profit realized and the estimated net profit for each financial year, but no more than the fixed annual allowance determined in accordance with the management agreement. This sub-component was also granted according to the Annual Indicator of fulfillment of performance indicators

**ANNUAL REPORT 2017**  
and criteria.

In equivalent per month, the variable sub-component 2 has a maximum gross monthly amount equal to the gross monthly fixed allowance.

With the OGMS Resolution no. 1/29.03.2017 the conclusion of addenda to the management contracts concluded between the administrators and the Company was approved, having as object the governing of some aspects related to the termination, at the due date, of the mandate of some administrators on 25.04.2017, i.e.:

- "The payment of the first sub-component of the variable remuneration corresponding to April 2017, with the adjustment related to the period January - April 2017 of the first sub-component of the variable remuneration shall be made without the administrator's obligation to prepare, submit and approve a Report of the Board of Directors, corresponding to April 2017, within 30 days of the date when the financial and non-financial data corresponding to April 2017 are available, the calculation of the indicators being subsequently checked and certified by the Company's financial auditor, on the basis of a report of specific procedures".

- "The remuneration corresponding to the second variable sub-component (variable sub-component II) for 2017, corresponding to the period January-April 2017, for non-executive directors whose mandates expire on April 25, 2017 shall be calculated and determined as follows:

a) A first sub-component shall be determined by applying a percentage of 0.4% from the excess of the net profit realized for the first months of 2017 in relation to the net profit budgeted for the first three months of 2017, after the completion of the quarterly financial statements for the first quarter of 0,4, based on the net profit reported for the first quarter of 2017, by comparing the net profit budgeted for the first three months of 2017 (according to the appendices to the budget) and shall be paid within maximum 30 days of the publication of the quarterly financial statements for the first quarter of 2017. In this case, this first sub-component of the second variable sub-component, related only to the first three months of 2017 (period of January to March 2017), shall be limited to, at maximum, to the fixed remuneration corresponding to the first three months of 2017.

b) A second sub-component, related to April 2017, to be determined by applying the "pro-rata" calculation principle, shall be determined by applying a 4/6 share of the amount determined by applying a percentage of 0.4% of the excess of the net profit realized in the first six months of 2017 in relation to the net profit budgeted in the first six months of 2017, from which the first sub-component of the second variable sub-component II (the one determined according to pt. a) above and related to the first quarter 2017) shall be deducted. This second sub-component of the second variable sub-component II shall be determined after the completion of the biannual financial statements for the first semester of 2017, based on the net profit reported for the first semester of 2017, by comparing the net profit budgeted for the first six months of 2017 (according to the appendices to the budget) and shall be paid within 30 days of the publication of the biannual financial statements for the first semester of 2017. The two sub-components of the variable remuneration II determined depending on the excess of the net budgeted profit shall not exceed, cumulatively, the equivalent amount of the fixed allowance paid for the first 4 months of 2017."



## ANNUAL REPORT 2017

The non-executive members of the Board of Directors with whom the Company concluded management contracts in 2017 (starting with April 2017) did not benefit from the variable component, as they were appointed in compliance with the provisions of art. 64<sup>1</sup> of OUG 109/2011 for a provisional period of 4 months until the completion of the selection procedure for the members of the Board of Directors.

***(ii) (ii) Performance criteria underlying the variable component of the remuneration; relationship between made performance and remuneration.***

***Non-executive administrators (management contracts concluded prior to 2017 who were terminated on 25.04.2017)***

The variable component is determined according to the objectives or target level fulfillment of the performance indicators approved by the Management Plan and it has two sub-components. In order to give the first sub-component of the variable component, the degree of meeting the performance criteria will be determined quarterly, taking into the consideration the weight of each indicator and the variation from the set target. The amount corresponding to the first sub-component is given in 4 (four) quarterly tranches in the conditions set as follows.

Thus, based on the indicators established and each share, it will be calculated a quarterly global indicator of performance IT, following the formula:

$$I_{T, A} = \sum_{i=1}^n I_i \times W_i$$

where

- IT – global quarterly indicator
- I<sub>i</sub> – Individual indicator (Degree of fulfillment - 100%)
- W<sub>i</sub> – Weighting
- IA – Annual global indicator

The value of the quarterly tranche of the first sub-component of the variable component which was granted to non-executive managers is equal to the sum of average gross monthly earnings in the branch in which the Company operates, provided by the National Institute of Statistics relating to that period, so that the total annual value of the first sub-component to be equal to the annual gross average earnings in the branch in which the Company operates, by the National Institute of Statistics.

Given that global quarterly indicator IT is done 100% or more, in the period for which the calculation is made, it was paid quarterly, 100% of the first part of the quarterly tranche corresponding to the first sub-component of the variable component. If the quarterly global Indicator IT is performed under 100% in the period for which the calculation is made, then it will paid quarterly only 75% of the quarterly tranche value corresponding the first sub-component of the variable component. If overall at the end of the year, the annual global indicator IA is done 100% or more, the differences retained from the first part of the

## ANNUAL REPORT 2017

variable component related to the quarters where the global quarterly coefficient was below 100%, it is paid to the manager.

In accordance with the degree of fulfillment of quarterly global indicators IT evidenced by the performance management Reports, non-executive managers were entitled to receive compensation representing the first sub-component of the variable component amounting to:

Quarter/Year	Quarterly global indicator IT	The amount of the first
		sub-component of the variable component
		[lei, gross amounts/administrator*]
Difference of Quarter II** /2016 (IA 2016)	125.56%	3,472
Quarter IV/2016	125.56%	14,218
Quarter I/2017	146.92%	13,672
April/2017	172.44%	5,024
<b>Total</b>		<b>36,386</b>

*\*\* In the second quarter /2016 the quarterly global IT indicator was achieved under 100% and the administrators were granted 75% of the value of the quarterly installment related to the first sub-component of the variable component (75% x Lei 13,888). At the end of 2016, the annual global IA indicator was achieved over 100% and in 2017 the administrators were paid the difference retained from the first part of the variable component, i.e. Lei 3,472 (25% x Lei 13,888).*

The second sub-component of the variable component which was granted to non-executive directors, was determined according to the objectives or target level fulfillment of annual performance indicators, i.e. the degree of achievement of annual global indicator IA and is set at a level of 0.4% of the amount representing the difference between the actual net profit realized and the estimated net profit for each financial year, but no more than the fixed annual allowance.

In 2017, the non-executive administrators were granted:

- The second sub-component of the variable component corresponding to 2016 and granted in 2017, the equivalent value of this sub-component being determined pursuant to art. 18 of the Management Contract concluded by them with the Company;
- The second sub-component of the variable component of the non-executive administrators, corresponding to the period January - April 2017, the equivalent value of this sub-component being determined pursuant to art. 18 of the Management Contract concluded by them with the Company and supplemented by the provisions of the OGMS Resolution no. 1/29.03.2017, whereby the conclusion of addenda to the management contracts concluded between the administrators and the Company was approved, having as object the governing of some aspects related to the termination, at the due date, of the mandate of some administrators on 25.04.2017.

Sub-component 2 of the variable remuneration granted to non-executive administrators in 2017 is presented in the table below:



## ANNUAL REPORT 2017

Administrator	Sub-component 2 of the variable remuneration corresponding to 2016 [lei, gross amounts*]	Sub-component 2 of the variable remuneration corresponding to the period January - April 2017 [lei, gross amounts*]
Alexandru Sandulescu	48,276	16,092
Alexandru Alexe	48,276	16,092
Carmen Radu	48,276	16,092
Dan Popescu	48,276	16,092
Sebastian Gabriel Tcaciuc	48,276	16,092
Nicolae Bogdan Codrut Stanescu	48,276	16,092
<b>Total</b>	<b>289,656</b>	<b>96,552</b>

**Executive Administrators: Chief Executive Officer**

**Directors with mandate contract: CFO**

The variable component for the Directors is determined according to the objectives or target level fulfillment of the performance indicators approved by the Management Plan and it has two sub-components.

In order to give the first sub-component of the variable component, the degree of meeting the performance criteria will be determined quarterly, taking into consideration the weight of each indicator and the variation from the target. The amount corresponding to the first sub-component is granted in 4 (four) quarterly installments, payable by the 26th of the starting month of the current quarter, for the previous quarter, as provided as follows.

Thus, based on the indicators established and each share, it will be calculated a quarterly global indicator of performance IT, following the formula:

$n$

where

$$I_{T,A} = \sum_{i=1}^n I_i \times W_i$$

IT –global quarterly indicator

Ii – Individual indicator (Degree of fulfillment - %)

Wi – Weighting

IA –Annual global indicator

## ANNUAL REPORT 2017

The value of the quarterly tranche of the first variable sub-component that is given to the Directors is equal to 3 (three) gross monthly fixed compensation, so that the total annual amount of the first sub-component is 12 (twelve) gross monthly fixed compensation. Given that global quarterly indicator IT is done 100% or more, in the period for which the calculation is made, it will be paid quarterly, 100% of the first part of the quarterly tranche corresponding to the first sub-component of the variable component. If the quarterly global Indicator IT is performed under 100% in the period for which the calculation is made, then it will be paid quarterly only 75% of the quarterly tranche value corresponding to the first sub-component of the variable component. If overall at the end of the year, the annual global indicator IA is done 100% or more, differences retained from the first part of the variable component related to the quarters where the global quarterly coefficient was below 100%, it will be paid to the Directors.

In accordance with the degree of the fulfillment of quarterly global indicators IT, managers with mandate contract were entitled to receive compensation representing the first sub-component of the variable component amounting to:

Quarter/ Year	Quarterly global indicator IT		The amount of the first sub-component of the variable component [lei, gross amounts*]	
	Chief Executive Officer	CFO	Chief Executive Officer	CFO
Difference of Quarter II*/2016 (IA 2016)	121.27%	121.27%	18,112	15,396
Quarter IV/2016	121.27%	121.27%	72,450	66,428
Quarter I/2017	136.30%	136.30%	72,450	68,850
Quarter II**/2017	156.17%	1193.86%	24,150	68,850
Quarter III/2017	-	246.13%	-	68,850
<b>Total</b>			<b>187,162</b>	<b>288,374</b>

*\*In the second quarter 2016 the quarterly global indicator IT was conducted less than 100% and it was given to the directors 75% of the quarterly installments variables related to the first sub-component (75% x 3 fixed compensation). If overall, at the end of the year, the annual global Indicator IA is done 100% or more, the directors will be paid the difference (25% x 3 Fixed allowances).*

*\* The amount granted pro rata to the General Manager, in compliance with the duration of the mandate contract no. 8/26.08.2013 (April 2017).*

The second sub-component of the variable component which is being granted to Directors, is determined according to the objectives or target level fulfillment of annual performance indicators, i.e. the degree of achievement of annual global indicator IA and is set at a level of 0.4% of the amount representing the difference between the actual net profit realized and the estimated net profit for each financial year, but

## ANNUAL REPORT 2017

no more than 12 (twelve) gross monthly fixed allowances ("annual calculation of the second variable sub-components").

The payment of the second variable sub-component of the remuneration will be made in two installments as follows:

- The first installment is paid by August 31 of each financial year and will represent 0.4% of the amount representing the difference between the actual net profit realized and the estimated net profit for the first semester of each financial year, but not more than 6 (six) monthly gross fixed allowances;
- The second installment is paid within 15 days of the approval of the annual financial statements for the financial year in question and will be paid based on the annual calculation of the second variable sub-component from which the value of the first installment paid will be deducted.

In 2017, the directors with mandate contract were granted:

- The second installment of the second sub-component of the variable component corresponding to 2016, the equivalent amount of this sub-component being determined pursuant to Art. 15 of the Mandate Contracts concluded by the directors with the Company;
- The first installment of the second sub-component of the variable component corresponding to 2017, the equivalent amount of this sub-component being determined pursuant to Art. 15 of the Mandate Contracts concluded by the directors with the Company and supplemented by the Decision of the Board of Directors no. 53/11.04.2017.

The second sub-component of the variable remuneration granted in 2017 to the directors with a mandate contract is presented in the table below:

Directors	Second installment of sub-component 2 of the variable	First installment of sub-component 2 of the variable remuneration corresponding to
-----------	---	--

## ANNUAL REPORT 2017

	remuneration corresponding to 2016 [lei, gross amounts*]	2017 [lei, gross amounts*]
General Manager	285,314	96,600*
Chief Financial Officer	251,180	137,700
Director CNE Cernavodă	37,157**	-
<b>Total</b>	<b>573,651</b>	<b>234,300</b>

\* Value determined pro rata according to the duration of the mandate contract no. 8/26.08.2013 (January - April 2017).

\*\* Value determined pro rata according to the period for which he held the position in 2016, i.e. the period 01.01.2016 - 08.04.2016. The warrant of Branch Director CNE Cernavodă was suspended starting on February 19th, 2016, and thereafter following submission of his resignation, his agreement ceased starting on April 8th, 2016. The current director of CNE Cernavodă Branch is paid under an individual employment contract.

In 2017, the centralized income situation of SNN's management (both the members of the Board of Directors and the directors with a mandate contract) is presented in the table below:

The Company's Management	Gross fixed allowance [lei]	The variable component		Total gross remuneration [lei]
		Variable sub- component I	Variable sub-component II	
Board members	706,734	218,316	386,208	1,311,258
Directors with mandate contract	643,986	475,536	807,951	1,927,473
<b>Total</b>	<b>1,350,720</b>	<b>693,852</b>	<b>1,194,159</b>	<b>3,238,731</b>

### *(iii) The considerations that justify any scheme of annual bonuses or non-cash benefits.*

SNN does not grant bonuses to the administrators and the directors with mandate contracts.

The Administrators and to Directors with mandate contracts appointed for a period of 4 years in compliance with the provisions of OUG 109/2011 receive, in compliance with SNN remuneration policy

## ANNUAL REPORT 2017

a second variable sub-component of the variable remuneration. Details of this sub-component were presented in (ii) from above. Considerations that justify granting of this annual bonus are as it follows:

1. The provisions art. 37 par. 2 and art. 38 par. 2 of Government Emergency Ordinance no. 109/2011 according to which the remuneration of Board Members and Directors consists of a monthly fixed salary and a variable component which may consist of a share of participation in the net profits of the Company, pension scheme or other form of remuneration based on performance indicators;
2. The provisions art. 37 par. 5 and art. 38 par. 3 of Government Emergency Ordinance no. 109/2011 according to which “the variable component level is determined according to well-grounded recommendations, formulated on the basis of a comparative study on the conditions of remuneration for similar positions in companies in the same field, with majority or wholly state of Romania and other European countries, by the nomination Committee or, as the case (...)”;
3. Study on the remuneration policy for Directors and Managers of the SNN issued by NCR to meet the requirements of art. 37 par. 5 of Government Emergency Ordinance no. 109/2011. Based on this study, NRC has developed recommendations on variable remuneration component for Managers and Directors;
4. Salary study was based on the following elements:
  - The remuneration level of similar business companies in Romania and from other European countries, being considered both state-owned companies, and private;
  - The remuneration level from other countries (Canada), given the existence of central CANDU operators;
  - The level of wages in cash and nature of some employees in leading positions within SNN;
  - Other companies with shareholder Romanian State, in other fields.

Also, the Directors have the following non-cash benefits:

1. Professional Liability Insurance, the amount insured being 3 million Euro;
2. The right to reimbursement of travel expenses for work;
3. The right to be considered as seniority and/or in electricity, thermal and nuclear the entire period of time for which he was a Director of the SNN;
4. The benefit, constantly, of a car service (whose cost will be borne entirely by SNN) phone service, laptop, desktop, office equipment, fax machines, logistics, stationery etc. and any other devices/equipment/facilities that are specific for the level of representation of the position of Director;
5. The benefit of an office space, according to its position of Director, with all the appropriate equipment and facilities;

**ANNUAL REPORT 2017**

6. The benefit of insurance against accidents at work and occupational diseases at the expense of the Company;

7. The benefit of the services of Secretariat, in which the cost of salaries fulfilling this function will be fully borne by the Company;

8. The right to request mediation, consultation and/or other protective measures from the Board of Directors, the General Meeting of Shareholders, confederation, federation or employers organization of which the Company, in resolving conflict situations with trade unions and/or employees' representatives, and other organizations, having the right to receive, in these cases, any legal necessary assistance, on the expense of SNN;

9. The right to have a prize fund protocol approved by the Company's Board of Directors;

10. The right to ensure an appropriate job for his training and work experience (based on an individual contract of indefinite duration concluded under the law), and all rights in the workplace, as required by law and/or the Collective Agreement applicable to the Company, after the ceasing, for any reason, of this agreement or after the removal from this position for reasons unrelated to his person.

***(iv) Any supplementary pension schemes or anticipated. - Not applicable.***

***(v) Information on agreement duration, notice period negotiated, amount of damage - interests to revoke unjust.***

The management/mandate contracts concluded by the members of the Board of Directors/Directors with SNN that were terminated in April 2017 with a duration of 4 years, do not provide for a negotiated notice period.

Upon unexpected or unwarranted revocation of administrators/directors, they are entitled to receive from SNN a compensation for the period unenforceable from the administration/warrant Agreement, regardless of when the revocation occurs, but not more than 12 fixed monthly allowances as following:

a) in case the revocation occurs any time before the beginning of last year of mandate, the manager/director will receive compensation representing 12 fixed monthly allowances;

b) in case the revocation occurs in the last year of the agreement, a compensation corresponding to the number of months remaining until the end of the term will be paid, but not less than 6 fixed monthly allowances.

The payment of this compensation is made within 30 working days from the date of ceasing of administration/warrant Agreement.

The management contracts concluded by the members of the Board of Directors with SNN (starting with April 2017) have a duration of 4 months or until the completion of the selection procedure of the



#### **ANNUAL REPORT 2017**

administrators in compliance with the provisions of Government Emergency Ordinance no. 109/2011, do not provide for a negotiated notice period. In the event of revocation without a just cause, no compensation was negotiated for the period that has not been performed of the Management Contract.

The management contracts concluded by the Directors with SNN (starting with April 2017) for a period of 4 months, provide for a negotiated notice period of 30 business days, as of the date of communication of the revocation decision of the Board of Directors. In the event of revocation without a just cause, no compensation was negotiated for the period that has not been performed of the Mandate Contract.

#### ***Nomination and Remuneration Advisory Committee,***

**Iulian - Robert Tudorache**

**Dragos Ionut Banescu**

**Cristian Dima**



**ANNUAL REPORT 2017**

**APPENDIX XI: AUDITED INDIVIDUAL FINANCIAL STATEMENTS AT AND FOR THE PERIOD ENDED ON 31.12.2017 PREPARED IN ACCORDANCE WITH OMFP 2844/2016**

Individual Financial Statements on and for the financial year ended on 31.12.2017 prepared in accordance with OMFP 2844/2016 are published on the website of S.N. Nuclearelectrica S.A. ([www.nuclearelectrica.ro](http://www.nuclearelectrica.ro)), section 'Investor Relations' and are accompanied by the report of the independent auditor on the Individual Financial Statements.

**APPENDIX XII: AUDITED CONSOLIDATED FINANCIAL STATEMENTS AT AND FOR THE PERIOD ENDED ON 31.12.2017 PREPARED IN ACCORDANCE WITH OMFP 2844/2016**

Consolidated Financial Statements on and for the financial year ended on 31.12.2017 prepared in accordance with OMFP 2844/2016 are published on the website of S.N. Nuclearelectrica S.A.





**ANNUAL REPORT 2017**

([www.nuclearelectrica.ro](http://www.nuclearelectrica.ro)), section 'Investor Relations' and are accompanied by the report of the independent auditor on the Consolidated Financial Statements.



## ANNUAL REPORT 2017

### APPENDIX XIII: NON-FINANCIAL STATEMENT

This non-financial statement 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, 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 the company.

Given the specific nature of S.N. Nuclearelectrica S.A., 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.

## 1. BUSINESS MODEL

### 1.1 OWN ORGANIZATION AND STRUCTURE

S.N. Nuclearelectrica S.A. (the “Company” or “SNN”) is a national joint-stock company, managed in one-tier management system, having 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 electric power” – NACE code 3511, and it is recorded in the Trade Register under no. J40/7403/1998, tax number 10874881, fiscal attribute RO.

SNN was established on July 2, 1998 through Government Decision 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. The Company operates under the Romanian legislation and the Articles of Incorporation.

Shareholding structure on 31.12.2017:

Shareholder type	Number of shareholders	Number of shares	% Ownership of the share capital
<b>Ministry of Energy</b>	1	248,736,619	82.4959%
<b>Fondul Proprietatea S.A.</b>	1	27,408,381	9.0903%
<b>Other legal entities (ownership under 1%), out of which:</b>	145	16,216,051	5.3782%
- from Romania	131	14,022,879	86.4754%
- from abroad	23	2,193,172	13.5246%
<b>Individual entities (ownership under 1%)</b>	3,357	9,152,800	3.0356%
<b>Total</b>	<b>3,325</b>	<b>301,513,851</b>	<b>100%</b>



## ANNUAL REPORT 2017

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.

*CNE branch (Nuclear - Electric Station) Cernavoda*, with registered office in Cernavoda, 2 Medgidiei Street, registered with the Trade Register under no. 13/3442/11.10.2007, 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 an installed capacity around 700 MW (MWe 706.5 Unit 1 and MWe 704.8 MWe Unit 2).

*FCN 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.

According to the Government initial strategy, the construction of Cernavoda NPP Units 3 and 4 will be completed by Energonuclear S.A., a subsidiary of SNN, incorporated in 2009. Currently, there is a new strategy for the continuation of the Project for Units 3 and 4 approved by the Extraordinary General Meeting of Shareholders of SNN of August 22, 2014, providing the incorporation of a new project company, into which EnergoNuclear will be absorbed. 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 19 kg of uranium. In order to produce the necessary fuel, FCN Pitesti operates at maximum capacity. In 2017, the FCN Pitesti branch manufactured 11,804 and delivered to Cernavoda NPP 11,520 nuclear fuel bundles, according to the manufacturing and delivery plan.



## ANNUAL REPORT 2017

### 1.2 THE MARKET IN WHICH THE COMPANY IS OPERATING

SNN represents a stability factor for the energy market in Romania, both through the base load electricity production and the competitive production cost. Although it is not supported and promoted by compensation schemes, an important part of the energy delivered by SNN was included in basic rates from the energy basket set by the National Regulatory Authority for Energy (“ANRE”) for 2016 and 2017, and the percentage decreased according to the ANRE strategy for liberalizing the energy market.

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

During 2017, electricity was sold based on the manufacturer's license, as follows:

- ❖ On the regulated market through contracts concluded with last resort suppliers with view to supply energy for their consumers at regulated tariffs;
- ❖ On the competitive market through sale-purchase contracts on the markets administrated by the market operator OPCOM S.A.: mainly PCCB – LE and PCCB - NC (centralized market for bilateral contracts; the method of transaction of the extended tender contracts/transaction method according to which the contracts are

distributed by continuous negotiations), PZU (the following day market) and PCSU (the centralized market for universal service);

- ❖ On the Balancing market administered by Transelectrica, in case of positive unbalance;
- ❖ Through negotiated sale-purchase contracts. Nuclearelectrica has only one such contract concluded with Transelectrica in the quality of captive consumer for the consumption of the Cernavoda 400 kV station (approximately 1.000 MWh/year).

The thermal energy produced and sold in 2017, through CNE Cernavoda, was delivered to the local supplier of thermal power and to several end consumers in Cernavoda and CNE site area. In Cernavoda area, SNN is the only producer that delivers thermal power in the centralized heating system.

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

- ❖ Energy producers;
- ❖ Electricity Transport Company - Transelectrica S.A.;
- ❖ Energy distributors;
- ❖ Energy suppliers;
- ❖ Energy traders.

The supply of electricity was performed during 2017 on two market segments: the regulated market and the competitive market.

## ANNUAL REPORT 2017

Until the date of this Report, there is no data published by ANRE regarding the energy market in 2016, on December 31, 2016. According to the ANRE market monitoring report for January, the market share of the manufacturers with dispatch units depending on the electricity delivered in the networks in January-November was for SNN of 18.57%, while the value of the indicator calculated for Hidroelectrica was 24.03% and for C.E. Oltenia 23.84%.

According to the statistical centralized data by Transelectrica S.A. so far, in 2017, the SNN production represented 17.65% of the total electricity produced in Romania (net values).

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

Structure of the energy production	2017		2016	
	GWh	%	GWh	%
<b>Conventional power plants</b>	28,088	44.1%	26,568	40.2%
<b>Hydro power plants</b>	14,755	23.2%	19,698	29.8%
<b>Nuclear power plants</b>	11,509	18.1%	11,286	17.1%
<b>Wind power plants</b>	7,411	11.6%	6,725	10.2%
<b>Photovoltaic power plants</b>	1,882	3 %	1,844	2.8%
<b>Total</b>	<b>63,645</b>	<b>100%</b>	<b>66,121</b>	<b>100%</b>

*Source: The National Institute of Statistics – Press release no. 37/2018.*

The estimated gross energy production in Romania decreased almost 3.7% in 2017 compared to 2016, while the estimated consumption decreased

with 0.4%. In 2017 the export on national level decreased with 23.7% compared to the value of the year before, reaching a value of 6.548 GWh, representing 57% of volume consumption, which is 11.446 GWh, from a total national consumption of 54.621 GWh.

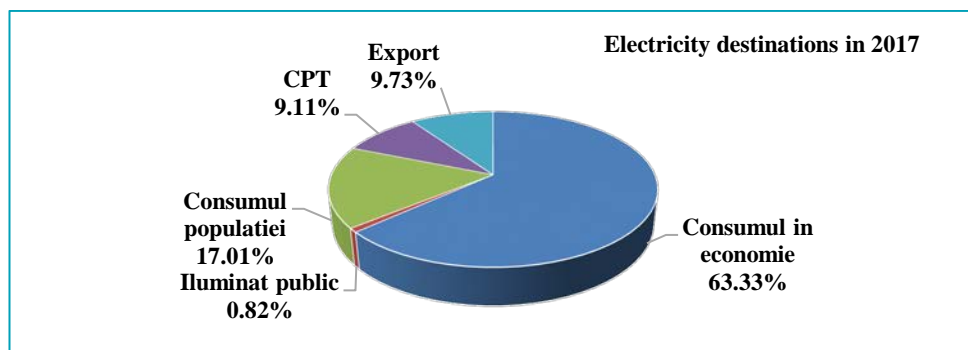
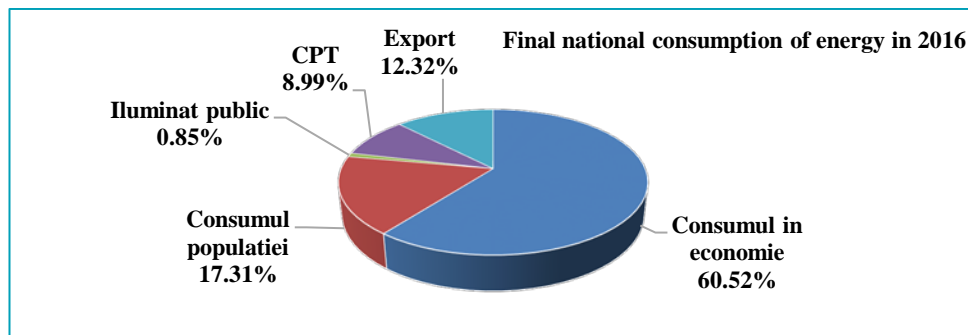
In 2017, the weight of the energy sold by SNN on the regulated market, in the total of the energy contracted on this market, was 35% (source: ANRE Report). Throughout 2017 the gradual liberalization of the energy market continued and ANRE reduced SNN's market share for the regulated market down to 5.77% of the 2017 production and established a new regulated price. Thus, in 2017, SNN had a supplementary participation on the competitive market compared to 2016, which ensured a higher profit margin compared to the previous year, as the energy price was significantly increased by the decrease of production in hydroelectric power plants, certain cases of unavailability of production units and weather factors.

During 2017, the quantity of electricity sold by SNN was 10,745 GWh (including the quantity sold on the balancing market), while in 2016 the quantity sold was 10,457 GWh (including the quantity sold on the balancing market).

Therefore, if in 2016, SNN sales represented nearly 19.07% of the final energy consumption needs, in 2017, SNN sales represented nearly 19.7 % of the final energy consumption of the national economy, which was 54.621 GWh (down by 0.4% in relation to 2016).

The structure of the final national consumption of energy in 2016 - 2017:

## ANNUAL REPORT 2017



## STRATEGIC GOALS

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, the lack of CO<sub>2</sub> 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.

The objectives of SNN, in line with the company's strategy for the period 2015-2025, are:

1. Operation of the nuclear units in safe conditions for the personnel, the population, the environment and the production assets
2. Conservation of the power production capacity above the present average level in industry
3. Accomplishment of the major investment objectives;
4. Improvement of the indicators regarding the financial performances of the company



## ANNUAL REPORT 2017

5. Ensuring the safety in the procurement of raw materials;
6. Diversification of the portfolio of activities;
7. Use of assets that are not currently generating revenues.

SNN shall mainly focus on maintaining an important role in the production of electricity on the Romanian market, by operating Units 1 and 2 under conditions of safety and efficiency.

The measures taken to achieve the strategic goals are presented below.

For the **operation of the nuclear units under conditions of nuclear security and safety for the personnel, the population, the environment and the assets** the following are considered:

- 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;
- Ensuring the continuity in terms of memberships within international organizations in the nuclear energy industry and, if applicable, affiliation to other organizations.

In order to **maintain the power production capacity above the present 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.);
- Optimizing the costs of producing nuclear fuel and electricity by judiciously planning and permanently monitoring the operating and maintenance expenses;
- Retrofitting Unit 1 that was commissioned in 1996. As a result of the retrofitting, the lifetime of Unit 1 will be extended by 25-30 years.

In terms of the **accomplishment of the major investment objectives:**

- 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;
- Identifying the objectives that need to be promoted and establishing a long-term priority order in a realistic manner, correlated with SNN's ability to allocate the technical, human and financial resources required;
- Conducting the necessary feasibility studies and commencing the works for the major investment objectives.





## ANNUAL REPORT 2017

The Strategic Investment Plan for the period 2015-2025 for Cernavoda NPP and FCN Pitesti identifies the projects that will take place during this period within NPP and FCN and estimates the annual funds required in order to support the investment program.

It should be noted that the plan takes into consideration the retrofitting of Unit 1 of Cernavoda NPP, the construction of the tritium removal facility - CTRF, as well as the doubling of the manufacturing capacity for fuel bundles at FCN Pitesti, which provides the Company with a series of solutions for the development and expansion of production capacities.

Furthermore, it should be underlined that, from the total projects in the plan, a project continues after the end of the period 2015-2025 too, this being the DICA project, whose development shall take place sequentially.

### In terms of the **improvement of the indicators related to the financial performances of the Company:**

- Preparing the commercial policy and strategy that would ensure the predictability and stability of revenues, considering: the support of the production activity and the capacity of funding the major investment projects; ensuring the Company's future revenues in relation to the fluctuations of the electricity price (long-term contracts); gradual de-regulations of the market until 2018;

- Monitoring and improving the internal control system, including compliance with OMFP [*Order of the Minister of Public Finances*] 946/2005;

- Taking over and expanding the integrated management model for the Headquarters and the FCN Pitesti Branch too, with direct results on cost efficiency;

- Optimizing the costs of producing nuclear fuel and electricity by judiciously planning and permanently monitoring the operating and maintenance expenses.

### In terms of **ensuring the safety in the procurement of raw materials:**

- Improving the process of purchasing products, services and works through dynamic planning and prioritization, ensuring the products and services, on time and in the quantities that are strictly required, by concluding long-term contracts for the business continuity;

- Identifying the most efficient raw material procurement measures required for the manufacture of fuel bundles and the operation of Units 1 and 2 of Cernavoda NPP

### In terms of **diversification of the portfolio of activities:**

- Identifying, assessing and implementing options for diversifying the portfolio of activities through strategic investments, correlated with a realistic long-term prioritization of SNN's technical, human and financial resources that would lead to sustained growth of the company in the current competitive context of the electricity market.

### In order to **use the assets that are not currently generating revenues:**





## ANNUAL REPORT 2017

- Completing the Project of Units 3 and 4 from Cernavoda NPP, by capitalizing existing assets of SNN, having a considerable value, land, buildings, equipment etc. - and those of EnergoNuclear S.A. - intangible assets etc., under the conditions of the law.

**The Strategy for continuing the Project of Units 3 and 4 of Cernavoda NPP by organizing an Investor Selection Procedure (the "Strategy") was approved by the Extraordinary General Meeting of Shareholders of S.N. Nuclearelectrica S.A. dated August 22, 2014.**

The strategy provides for the creation of a joint venture ("JV") within the meaning of art. 50 of Law no. 137/2002, between Societatea Nationala Nuclearelectrica S.A. ("SNN") and a selected private investor, i.e. a JV, to which the value invested by SNN in the subsidiary company EnergoNuclear S.A. ("EN") would be transferred. JV represents the company prior to the IPP (Independent Energy Producer - IPP) company, set up for a period of 2 years, duration that may be modified with the agreement of the parties, in order to recheck, under the current conditions, the feasibility of the project, the assessment of asset, taking the decision related to the contracting of engineering, procurement and construction (EPC) works, obtaining the necessary authorizations and approvals for the commencement of the works, including the support measures to be granted to the project under the conditions of the national and Community legislation and taking the final investment decision for the transition to the implementation phase of the Project and subsequently to the IPP stage.

## ***2. THE REGISTER OF RISKS AND THE MAIN TRENDS AND FACTORS THAT MAY IMPACT THE DEVELOPMENT***

SNN has established the main medium- and long-term strategies with the main focus on maintaining the nuclear safety, continuous growth and increasing its shareholders' profits, the analysis of the risks of the activity being important in this context.

In the medium and long term, SNN's activity will be influenced both by the evolution of electricity prices and by the investment projects that the Company will be developing: extending the lifetime of Unit 1, participating in the development of Units 3 and 4 and/or participating in the development of other strategic investment diversification projects.

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 goals, the critical elements in relation to the implementation of the strategies and the risks that the Company will be faced with.

## ANNUAL REPORT 2017

Specific to the external	A) Macroeconomic Environment		B) Operational Environment	
	1	Market risk	1	Operational risk
	2	Currency risk	2	Counterparty risk
			3	Competition risk
Specific	A) Pre-construction stage		B) Construction stage	C) Operation stage
	1	Legislative risk	1	Exceeding the costs
	2	Risk related to the connection to the transport network	2	Risks related to the completion of the
	3	Commercial risk and financing risk		

**Source:** SNN Analysis

The risks specific to the external environment are described below.

### Macroeconomic Environment

The future profitability of the Company's operations and the feasibility of its projects depend on market conditions in Romania and those in neighboring countries. 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. The analysis of the market risk has a direct impact on the overall performance of the Company.

### Legislative risk

The legislative risk is represented by the changes that may occur in the Romanian legislative framework. Possible changes may concern the imposition of new taxes by local and central authorities and/or by the



## ANNUAL REPORT 2017

authority regulating 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.

### 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 that are denominated in foreign currency.

### 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 risks* are associated with the Company's activity, with its capacity of generating revenues and maintaining a competitive operational margin. 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. Taking into account the production profile, nuclear energy is generally less

exposed to operational risks than electricity based on natural gas, coal, hydropower, and renewable energy sources.

Prolonged and heavy drought and unexpected technical problems may have a major impact on the production of electricity, following unplanned business outages.

One of the factors that may mitigate these risks is to consider negotiating 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 necessary cash flow operations and investments. This also depends, however, on the regulations in force that may or may not allow the conclusion of such contracts.

#### Counterparty risk

*The counterparty risk* is the risk of business partners not acting in compliance with the terms and conditions specified under the contracts concluded. In the context of market liberalization, SNN will seek to conclude long-term sales contracts for a great share of its production capacity, this being a condition for ensuring the cash flow imposed by lending institutions, especially considering the additional funding needed to perform the investments. To mitigate this risk, the Company has a customer selection policy based on their credit risk, seeking to conclude such contracts only with solvable traders.

#### Competition risk



## ANNUAL REPORT 2017

The competition risk should be analyzed in the context of continued market liberalization that facilitates the access of SNN to selling its production at higher prices that are found on the free market. Furthermore, regional integration is taken into consideration. SNN shall be exposed to an increase of the regional competition and to future improvements, refurbishments, expansions and new construction expected to be made by producers from the national electricity market. However, as a specific characteristic of the nuclear energy, going forward, the cost of electricity produced from nuclear sources is expected to remain lower than the cost of production facilities based on coal or natural gas, which are very sensitive to the increase of the fuel price and the costs regarding the compliance of the regulations regarding the environment protection (e.g. carbon dioxide emissions). 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). Although hydroelectric power is cheaper and currently accounts for 25-30% of Romania's production of electricity, it depends on the availability of water. In conclusion, among the electricity sources whose fuel is available, predictable and stable, nuclear energy from nuclear sources has the lowest production cost.

### 3. DUE DILIGENCE POLICY AND PROCESS

#### 3.1. UNITARY MANAGEMENT MODE OF THE COMPANY

The executive body of the company is the Board of Directors and consists of 7 members, non-executive. Following the expiry of the mandate of six out of the seven directors appointed for a 4-year mandate, according to the

provisions of GEO 109/2011, on 25.04.2017, the General Assembly of Shareholders of 24.04.2017 appointed 6 temporary directors for a 4-month mandate starting with 26.04.2017, according to the provisions of art. 64<sup>1</sup> par (4) and (5) of GEO 109/2011, until the completion of the director selection procedure based on the provisions of the same OUG. Subsequently, in 2017, there were two other Ordinary General Assemblies of Shareholders that appointed temporary members in the Board of Directors for temporary 4-month mandates:

- 24.08.2017 – appointing temporary directors according to the provisions of art. 64<sup>1</sup> par (4) and (5) of GEO 109/2011 starting with 27.08.2017
- 20.12.2017 – appointing temporary directors for a 4-month mandate starting with 28.12.2017 or until the completion of the director selection procedure according to the provisions of GEO 109/2011 approved by Law 111/2016, by the method of the cumulative vote upon the request of the majority shareholder, the Ministry of Energy.

Additionally, by the Resolution of OGSM 7/28.09.2018, the initiation of the procedure for the selection of the members of the Board of Directors of SN Nuclearelectrica S.A. according to the provisions of GEO no. 109/2011, as further amended and supplemented, a section introduced in the agenda upon the request of the majority shareholder, the Ministry of Energy. “The procedure of selecting 6 members of the Board of Directors to be appointed by the Romanian State in order to be elected in the general assembly of shareholders will be implemented by the Ministry of Energy as a public custody authority, according to the provisions of art. 29 par.



## ANNUAL REPORT 2017

(3) and par. (4) of GEO no. 109/2011, as further amended and supplemented."

Considering the fact that the members of the Board of Directors were appointed for temporary mandates of 4 months starting with 26.04.2017, in the interim period, according to the legal provisions, the Board of Directors did not submit to the approval of AGA an administration plan and was only paid by a fixed component, in the absence of the indicators derived from the administration plan. An administration plan and the derived performance indicators are to be approved only after the completion of the procedure of electing the members of the Board of Directors for a 4-year mandate according to the provisions of GEO 109/2011.

The capacity of the General Manager of SNN as a member in the Board of Directors ceased on 25.04.2017, with the appointment of the temporary directors, although the position of general manager was then held by Mrs. Daniela Lulache, based on a temporary 4-month mandate in period 01.05.2017 – 01.09.2017, a transition period that facilitated a stage and complete transfer of the activities to the new administrative structure. The current General Manager of SNN, appointed by the resolutions of the Board of Directors no. 132/24.08.2017 and 217/20.12.2017, Mr. Cosmin Ghita, for temporary 4-month mandates, is not a member of the Board of Directors.

The Members of the Board of Directors were appointed by the General Assembly of Shareholders, by applying the secret vote method. The candidates proposed by the Board of Directors were selected/evaluated in

advance and recommend by the Nominating Committee of the Board of Directors.

The President of the Board is elected by the Board of Directors from among its members, in the person of Mr Iulian-Robert Tudorache. The President of the Board is appointed for a period that may not exceed the duration of his/her mandate/term as administrator/director and can be dismissed any time by the Board of Directors.

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. In case the directors/administrators were appointed from among the company's employees, the concluded employment contract shall legally terminate on the date she/he has accepted the mandate.

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 Board of Directors 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

## ANNUAL REPORT 2017

At 31.12.2017 the administrators of the Company are as follows:

Name and surname	Age (years)	Qualification	Professional experience (years)	Position	Date of appointment	Date of mandate expiration
<b>Iulian-Robert Tudorache</b>	43 years	Attorney-at law	17 years	President of the Board of Directors (non-executive member)	26.04.2017 (temporary mandate according to OGSM Resolution 2/24.04.2017)	26.08.2017
					27.08.2017 (temporary mandate according to OGSM Resolution 5/24.08.2017)	27.12.2017
					28.12.2017 (temporary mandate according to OGSM Resolution 10/20.12.2017)	28.04.2018
<b>Cristian Gentea</b>	55 years	Physician engineer	30 years	Non-executive member of the Board of Directors	26.04.2017 (temporary mandate according to OGSM	26.08.2017

					Resolution 2/24.04.2017)	
					27.08.2017 (temporary mandate according to OGSM Resolution 5/24.08.2017)	27.12.2017
					28.12.2017 (temporary mandate according to OGSM Resolution 10/20.12.2017)	28.04.2018
<b>Elena Popescu</b>	58 years	Nuclear station engineer	34 years	Non-executive member of the Board of Directors	11.07.2017 (temporary mandate according to OGSM Resolution 3/11.07.2017)	26.08.2017
					27.08.2017 (temporary mandate according to OGSM Resolution 5/24.08.2017)	27.12.2017
					28.12.2017 (temporary mandate according to OGSM	28.04.2018

## ANNUAL REPORT 2017

					Resolution 10/20.12.201 7)	
<b>Cristian Dima</b>	50 years	Economist	26 years	Non-executive independent member of the Board of Directors	28.12.2017 (temporary mandate according to OGSM Resolution 10/20.12.201 7)	28.04.20 18
<b>Mihai Daniel Anitei</b>	48 years	Mechanical engineer	21 years	Non-executive independent member of the Board of Directors	28.12.2017 (temporary mandate according to OGSM Resolution 10/20.12.201 7)	28.04.20 18
<b>Dragos Ionut Banescu</b>	46 years	Economist	22 years	Non-executive member of the Board of Directors	27.10.2017 (temporary mandate according to OGSM Resolution 167/27.10.20 17)	27.12.20 17
					28.12.2017 (temporary mandate according to OGSM Resolution 10/20.12.201 7)	28.04.20 18

<b>Mirel Marcu Alexandru</b>	48 years	Engineer	24 years	Non-executive independent member of the Board of Directors	27.08.2017 (temporary mandate according to OGSM Resolution 5/24.08.2017)	27.12.20 17
					28.12.2017 (temporary mandate according to OGSM Resolution 10/20.12.201 7)	28.04.20 18

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 BVB, the members of the Board of Directors with contractual relations with a shareholder owning over 10% of the voting rights, as of January 1, 2016 are: Iulian-Robert Tudorache (State Secretary within the Energy Ministry), Elena Popescu (General Manager, General Division of Energy Policies within the Ministry of Energy), Cristian Gentea (General Manager of the Administration of Technologies for Nuclear Energy, an entity 100% owned by the Romanian State, a majority shareholder of SNN) and Dragos Ionut Banescu (General Secretary within the Ministry of Labor and Social Justice)



### 3.2 DUTIES OF THE BOARD OF DIRECTORS

According to the Administration Plan of July 09, 2013, the main objectives of the Board of Directors, appointed for a 4-year mandate, expired on 25.04.2017, were the following:

- Operation of the nuclear units in safe conditions and nuclear for the staff, population, environment and production assets;
- Conservation of the power production capacity above the present average level in industry;
- Accomplishment of the major investment objectives;
- Improvement of the indicators related to the financial performances of the company.

The Board of Directors appointed for temporary mandates starting with 26.04.2017 did not approve administration plans, and this was an obligation for the Boards of Directors appointed for 4 months according to the provisions of art. 30 of GEO 109/2011.

By the Resolution of the Board of Directors no. 41/22.03.2017, the Organization and Operation Regulation of the Board of Directors was updated, and includes the reference terms of the Board of Directors, according to the provisions of the Corporate Governance Code of BVB.

The Board of Directors has the following responsibilities that cannot be delegated to the General Manager:

- Approval of the Company's main activity and development directions;
- Establishment of the accounting and financial audit system and approval of the financial planning;
- Appointment and revocation of the Managers, as well as the establishment of their remuneration;
- Oversight of the activity of the General Manager and of the Managers;
- Preparation of the annual report, organization of the general meeting of shareholders and implementation of the GMS resolution;
- Filing the request for opening the insolvency procedure of the company, as per the Law 85/2006 regarding the insolvency procedure;
- Approval of changing the activity field of the company, without changing the Company's field of operation and main activity.

The Board of Directors has also the following responsibilities:

- Exercise control on the way the General Manager and the other Managers govern the Company;
- Approves the revenues and expenses budget;
- Approves the management plan prepared by the General Manager and/or other Directors;
- Verifies if the activity of the company is compliant with the Law, the Articles of Incorporation and any relevant resolution of the General Meeting of Shareholders;
- Presents to the General Meeting of Shareholders an annual activity report;
- Represents the company in relationship with the General Managers and the appointed Managers;





#### ANNUAL REPORT 2017

- Checks and approves the quarterly, half-year and annual financial statements of the Company;
- Verifies and approves the Report of the General Manager and the reports of the Managers;
- Proposes to the General Meeting of Shareholders the appointment and the revocation of the financial auditor, as well as the minimum duration of the audit contract;
- Approves the mandate contracts of the General Manager and of the appointed Managers thus establishing the organization of the activity of the managers;
- Approves the empowered representatives to negotiate the collection work agreement with the unions and/or with the representatives of the employees as well as their negotiation mandate;
- Approves the Company's collective work agreement;
- n) Approves the Organization and Operation Regulations of the Board of Directors;
- Approves the activity programs (production, research– development, technological engineering, investment, etc);
- Approves the energy transactions strategy of the Company;
- Approves any transaction of the company with any of the companies with which it has closed relations whose value is equal to or more than 5% of the net assets of the company (according to the latest financial report) following a mandatory opinion of the Audit Committee of the Board and disclosed to shareholders and potential investors in the right way, insofar as such transactions fall into the category of events which are subjected to reporting requirements.
- Approves the conclusion of any contract/document which raises legal obligations for the Company (acts of acquisition, sell, exchange and pledge as guarantee non-current assets of the Company), the value of which does not exceed, separately and cumulated, during one financial year, 20% of the total non-current assets of the Company less receivables, in compliance with the competence limits provided in the Annexes to the Articles of Incorporation;
- Approves the renting of tangible assets, for a period greater than a year, with an individual and cumulated value for the same contractor or entity involved with the company, which does not exceed 20% of the total value of non-current assets, less receivables at the date of the legal document, as well as the associations for periods greater than 1 year, which do not exceed the same value;
- Approves the mandate of Nuclearelectrica's representatives in the General Meeting of Shareholders of S.C. Energonuclear S.A. for the decisions which fall under the competence of S.C. Energonuclear S.A. with the exception of those for which a resolution of the Company's General Meeting of Shareholders is necessary, in compliance with the provisions of the Articles of Incorporation.

The Board of Directors is responsible for the endorsement/approval of the contracts, credits and different operations at the level of the Company, in compliance with the competence limits provided by the Annexes to the Articles of Incorporation.



## ANNUAL REPORT 2017

### 3.3 ADVISORY COMMITTEES WITHIN 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 Board of Directors and available on the SNN site.

As per the Articles of Incorporation and in compliance with GEO 109/2011, the Board of Directors established 4 advisory committees, made up of at least 2 board members of the Board of Directors.

#### *The Audit Committee for Nomination and Remuneration*

This committee was established according to Art. 34 of the GEO no. 109/2011 regarding corporate governance of the public companies, by Decision no. 7 of the Board of Directors from 26.04.2013.

#### *The Audit Advisory Committee*

This committee was established according to Art. 34 of the GEO no. 109/2011 regarding corporate governance of the public companies, by Decision no. 8 of the Board of Directors from 30.04.2013.

#### *The Advisory Committee for Nuclear Safety*

This committee was established according to Art. 34 of the GEO no. 109/2011 regarding corporate governance of the public companies, by Decision no. 27 of the Board of Directors from 26.08.2013.

#### *The Advisory Committee for strategy, development and large investment projects*

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

Each Advisory Committee has appointed a secretary and a president.

The Presidents of the Advisory Committees are the following administrators:

<b>The Audit Committee for Nomination and Remuneration</b>	<b>Iulian-Robert Tudorache</b>
<b>The Audit Advisory Committee</b>	<b>Dragos Ionut Banescu</b>
<b>The Advisory Committee for Nuclear Safety</b>	<b>Cristian Gentea</b>
<b>Advisory Committee for strategy, development and Large Investment Projects</b>	<b>Elena Popescu</b>

### 3.4. NUCLEAR SECURITY POLICY



## ANNUAL REPORT 2017

SNN developed a nuclear security policy that was approved by CNCAN, with the purpose of maintaining a high and constant level of nuclear security in all the phases of the commissioning and operation of nuclear facilities. The nuclear security policy of SNN ensures performance bonds for all the significant activities regarding nuclear security, in all the phases of installation and operation of nuclear facilities. This document confirms the fact that nuclear safety has the maximum priority.

The high level of nuclear security is ensured by the design, construction and operation of the nuclear installations. Nuclear security includes all technical and organizational measures, as well as the actions taken in a nuclear power plant in order to protect the population and the environment against emissions of radioactive substances.

After the Fukushima accident, the European Commission and the Group of European Regulators of the Nuclear Society decided that the nuclear security of nuclear plants in Europe should be reviewed based on transparent and extended risk assessments, called "Stress tests". The technical purpose of these stress tests was defined considering the risks pointed out by the events occurred at Fukushima. The focus was placed on triggering events, such as earthquakes or floods, the consequences of loss of the functions of ensuring the electricity or cooling water from any triggering event, as well as severe accident management difficulties.

Cernavoda NPP, together with AECL Canada and ANSALDO Italy issued "The reevaluation report of nuclear security margin". The evaluation performed proves the fact that Units 1 and 2 from 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 serious accidents. Also, new methods were identified for preventing and limiting the consequences of serious accidents which may determine the melting of the active area.

In addition, a large number of employees take part in various training courses, both in the country and abroad, especially in those of international organizations such as IAEA or WANO. 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 services 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°C
- Saturated steam (H2O) pressure 4.6 MPa
- Supply water temperature 187.20°C



## ANNUAL REPORT 2017

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.

### ***3.5. THE ENVIRONMENTAL PROTECTION ACTIVITY***

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

#### ***CNE CERNAVODA BRANCH***

The Environment Authorization no. 1/26.05.2008 issued by the Ministry of Environment and Sustainable Development for the operation of Cernavoda NPP Units 1 and 2, valid until 05.01.2019. The Authorization covers all the assets and activities related to the operation of Cernavoda NPP Units 1 and 2, including both the nuclear component of the plant and

the classic one. The authorization was issued without a compliance program;

The Authorization regarding the greenhouse gas emissions no. 8/01.02.2013, 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 Group of each unit as well as the motor pump for the fire extinguishing system fall under the legislation regarding the reduction of greenhouse gas.

Water Management Permit no. 131/01.06.2016 issued by the National Administration "Romanian Waters" on "Water supply and sewage disposal for Units 1 and 2 of Cernavoda Nuclear Power Plant" valid until 31.05.2019;

Water Management Permit no. 275/05.12.2016 issued by the National Administration "Romanian Waters" on "Cernavoda Spent Fuel Storage Facility (DICA)" valid until 05.12.2019. This permission National Administration "Romanian Waters" to give 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.

#### ***FCN PITEȘTI BRANCH***

The Environment Agreement issued by the Ministry of Environment and Forests and approved by the Government's Decision no. 1061/2011, valid until February 28, 2015, issued with a compliance plan, the procedure of reauthorization is in progress.



## ANNUAL REPORT 2017

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

1. Certificate no. 56/2016 regarding the Environment Management System of SNN - CNE Cernavoda branch for the production of electrical and thermal energy, using nuclear resources as well as for connected activities, as per the provisions of the SR EN ISO 14001:2005 (ISO 14001:2004) standard, issued by IQNet and SRAC on July 19, 2016 and valid until September 15, 2018.

2. Certificate no. 4309/2016 regarding the Environment Management System of SNN – FCN Pitesti branch for the nuclear fuel manufacturing process, in accordance with the conditions of the EN ISO 14001:2004 standard, issued by IQNet and SRAC at October 25, 2016 and valid until September 15, 2018.

The impact of the operation of the NPP on the environment is constantly monitored and reported in accordance with the requirements of the operation and environment authorizations. For both branches, the company observed during 2017 the limits for pollutants set in environmental permits.

In 01.01.2017 – 31.12.2017 on the level of SNN SA and of the branches, there were no events with impact on the environment, population and own and contracting personnel.

All the environment reports were drafted and sent until the agreed deadlines according to the provisions from authorizations, protocols and additional requests.

According to the Investors Agreement, SNN was responsible for obtaining the environmental approval for the investment “Continuation and completion of 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 when the environmental approval was issued. According to the specific environmental legislation for nuclear premises, the environmental approval was issued by Government Resolution no. 737/2013.

The total volume of solid radioactive waste, for both units of CNE Cernavoda, generated in 2017, was 46.33 m<sup>3</sup>. In total, up to the present, in the period 1996 - 2017, the total volume of solid radioactive waste, for both units, is 856.69 m<sup>3</sup>.

The waste is stored within the protection fence of Cernavoda NPP, inside the Intermediary Storage for Solid Radioactive Waste.

### ***CERNAVODA NPP'S POLICY FOR MANAGING THE FUEL USED***

1. Wet storage in the used fuel pool of the unit for a period of minimum 6 years;



## ANNUAL REPORT 2017

2. Dry storage for used fuel in intermediate storage for a period of 50 years.

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

The deposit is gradually built according to DICA Strategy for long term development. Currently, there are 8 modules MACSTOR 200 type, with 12,000 bundles/module capacity.

In 2017, a number of 5,584 fuel bundles from Unit 1 and 4,888 bundles from Unit 2 were transferred to the Spent Fuel Storage Facility.

FCN Pitesti monitors the gaseous radioactive effluents discharged in the atmosphere through the dispersion chimneys as well as the liquid effluents transferred to the Treatment Station of the Nuclear Research Institute in Pitesti, in compliance with the conditions stipulated in the authorizations. As per these conditions, FCN Pitesti may release in the atmosphere a volume of radioactive gaseous effluents of maximum  $10^9$  m<sup>3</sup>/year. The volume of gaseous radioactive effluents released in the atmosphere in 2017 represented 72.7% from the authorized volume.

FCN Pitesti transferred in 2017 a volume of 350 m<sup>3</sup> liquid radioactive effluents to the Cleaning Station of the Nuclear Research Institute (SE-ICN), which represented 17.5% of the maximum authorized volume.

It was transferred to the treatment of radioactive waste treatment station Nuclear Research Institute (STDR-ICN) a volume of 320 m<sup>3</sup> of radioactive liquid waste, which is 40% of the limit value in the environment authorization (800 m<sup>3</sup>/year).

11,925.4 kg of non-burnable radioactive solid waste (DSRN) and 3,148.8 kg of burnable radioactive solid waste (DSRI) were generated. Transfers were performed five non-burnable radioactive solid wastes (DSRN) to deposit the final disposal of low-level radioactive solid wastes from CNU, Feldioara branch, the amount of 14,561.4 kg DSRN. Also 2,287.8 kg were transferred to radioactive solid waste incinerator (DSRI) for the treatment by incineration in STDR-ICN Pitesti.

## ***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 Cernavoda NPP'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.

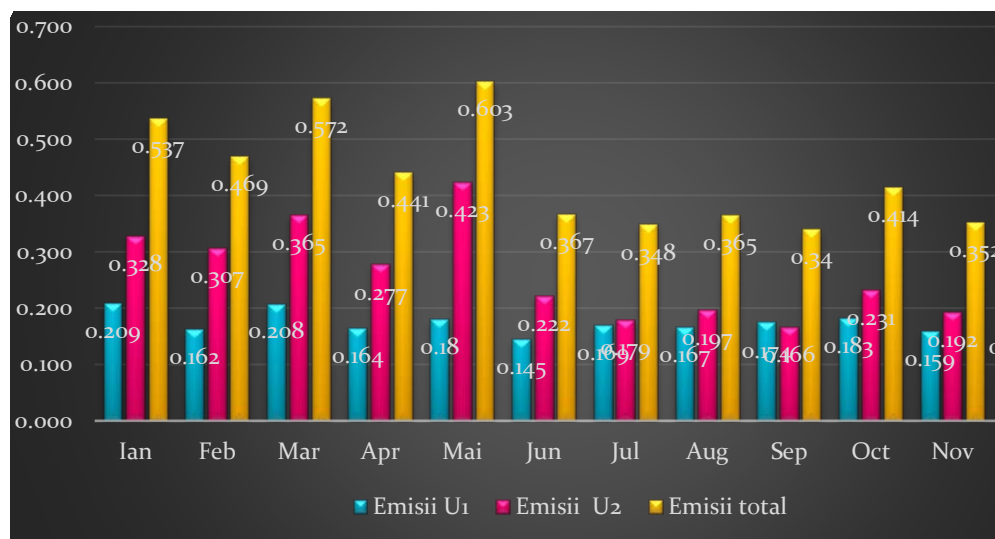
The Radiation Protection performance indicators show us the efficiency of the Radiation Protection programs in optimizing the personnel exposure to radiations.



## ANNUAL REPORT 2017

The radioactive emissions into water and air were kept quite below the authorized limits for the Station. The annual average dose received by a member of the critical group, due to the radioactive emissions of Units 1 and 2 was 0.005167 mSv in 2017, while the annual average dose received by a member of the general public from the natural radiation background is of 2.4 mSv. More detailed information on the radiological impact are provided by SNN - "Environment Report".

Environment radioactive emissions U1 + U2 in 2017 (microSv)



In 2017, the achieved collective dose was 507.5 mSv/worker, the annual average dose for works with recordable doses was 0.57 mSv, and the individual maximum dose was of 5.72 mSv. The legal limit for the effective dose for the professionally exposed workers is 20 mSv/year, and

the administrative level at CNE is 14 mSv/year. Neither of these limits was exceeded.

At the end of 2017 the internal collective dose was of 89.57 mSv/worker, representing 17.6% of the total dose at the level of the power plant.

The Radiation Protection Department issues regular reports regarding the evolution of the collective doses and of the ALARA performance indicators, thus raising the involvement of the plant's personnel in the control and optimization process for the professional exposure to ionized radiation. The achievement of these objectives is monitored through the ALARA process and the ALARA committees carry on their activity with excellent results. With an average dose per unit of 253.75 mSv/worker, Cernavoda NPP maintains its position as one of the highest performing NPPs from CANDU group.

The Radiation Protection program of the FCN Pitesti branch has the objective to maintain a very low exposure to ionized radiation, individual radiological monitoring and of the work environment according to the current law and requirements from the operating permits issued by CNCAN.

For the external exposure to ionized radiations, the entire personnel of FCN Pitesti is monitored using the Thermal-luminescent Dose-meters (TLDs) measured within the Personal Radiation Protection and Dose-meter Laboratory of FCN (LRDP-FCN), assigned by CNCAN as a certified dose-meter authority with assigning certificate FCN ODD06/2017 valid for the period October 24, 2017 – October 23, 2020.



## ANNUAL REPORT 2017

Starting January 1, 2015, FCN Pitesti reduced the Management Control Limit for the individual annual effective dose for the personnel exposed professionally from 18 mSv/year to 15 mSv/year and, with it, the monthly derived limit from 1.5 mSv/month to 1.25 mSv/month.

In 2017 the collective dose of FCN was 565,494 mSv/person, of which the collective dose following the external exposure was 499,855 mSv/person. The collective dose following internal exposure (65,639 mSv/person) represented 11.6% of the collective dose of FCN for 2017. The individual average annual dose was 1,115 mSv/year, a dose which represents 7.43% of the management control limit for an individual annual effective dose of the professionally exposed personnel requested by FCN Pitesti.

FCN Pitesti manufactured in 2017 a volume of 11,804 bundles with natural uranium dioxide. From it, 11,520 bundles were delivered to CNE Cernavoda, for the 2 units in operation, as follows: 5,760 bundles of nuclear fuel to Unit 1 and 5,760 bundles of nuclear fuel to Unit 2.

The nuclear fuel malfunction rate in 2017 was 0% for both units of Cernavoda NPP. For year 2017, the average discharging combustion degree was 168.105 MWh/kg U for Unit 1 and about 182.006 MWh/kg U for Unit 2. Thus, the high performance of the nuclear fuel was demonstrated during the operation of the two nuclear reactors.

FCN Pitesti continued to monitor the personnel and the means of transportation, with the purpose of correlate the doses, and reported the

findings to CNCAN, on an annual basis and filled a report after each transport.

### **3.6. 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.

### **3.7. OPERATING AUTHORIZATIONS AND LICENSES**

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

- a) Location Authorization no. Site authorization no. I/605/30.09.1978, issued by the State Committee for nuclear energy;
- b) Authorizations in the nuclear field issued by (CNCAN);
- c) Licenses issued by (ANRE);
- d) Other authorizations.

***a) Site Authorization no. I/605/30.09.1978, issued by the State Committee for Nuclear Energy.***

The site authorization was issued for Cernavoda site for the construction of a CANDU-PHWR 4x660 MWe nuclear power plant, made up of 4 nuclear reactors. The authorization was issued on the basis of Law no.





## ANNUAL REPORT 2017

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.

### ***b) Authorizations in the nuclear field issued by CNCAN.***

As per Art. 8 (1) of the Law no. 111/1996, for the development of the activities and/or utilization of the resources that make the object of this law, the operators must obtain specific authorizations issued by CNCAN, by respecting the specific authorization procedure for every type of activity or resource. At the end of year 2017, the following authorizations in the nuclear field were valid for SNN:

(iv) Authorizations issued by CNCAN in the nuclear field for the Cernavoda NPP Subsidiary:

- (f) Nuclear safety authorization for the operation and maintenance of the Nuclear Power Plant of Cernavoda, Unit 1, authorization no. SNN CNE Cernavoda U1 – 01/2013. The authorization was issued for a period of 10 years, starting with 01.05.2013 until 30.04.2023;
- (g) Nuclear safety authorization for the operation and maintenance of the Nuclear Power Plant of Cernavoda, Unit 2, authorization no. SNN CNE Cernavoda U2 – 02/2013. The authorization was issued for a period of 7 years, starting with 01.05.2013 until 30.04.2020;
- (h) Nuclear safety authorization for the construction of Modules 8 and 9 of the Intermediary Used Fuel Storage, authorization number SNN DICA 03/2016. The authorization is valid until February 08, 2021;

- (i) Nuclear safety authorization for the operation and maintenance of modules 1, 2, 3, 4, 5, 6, 7 and 8 of the Intermediary Used Fuel Storage, authorization no. SNN DICA 03/2017. The authorization was issued for a period of 5 years, starting with 13.07.2015 until 12.07.2020;
  - (j) 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 – 01/2017 is issued for a period of 2 years, starting with 01.05.2017 until 30.04.2019.
- (v) Authorizations issued by CNCAN in the nuclear field for the FCN Pitesti branch:
- (d) The authorization for the Quality Management System in the nuclear field no. 16-041 issued in virtue of Art. 24 of Law no. 111/1996, for production activities in the nuclear field, for 2 years, from September 18, 2016 to September 17, 2018;
  - (e) 9 authorizations for activities in the nuclear field:
    - i. Authorization DN/175/2017 for possession of ionized radiation sources, radiologic devices with ionized radiations, devices generating ionized radiations, nuclear devices for processing and producing nuclear fuel, raw nuclear material, nuclear fuel, radioactive waste, materials with nuclear purpose, equipment and devices provided by Government Decision no. 916/2002, valid starting from 01.09.2017 until 30.01.2018;
    - ii. Authorization DN/176/2017 for the use of sealed ionized radiation sources, ionizing radiological installations,



## ANNUAL REPORT 2017

- equipment and devices, valid starting from 01.09.2017 until 30.01.2018;
  - iii. Authorization DN/177/2017 for the manipulation of sealed radiation sources, radiological installations with sealed sources and radioactive waste, valid starting with 01.09.2017 until 30.01.2018;
  - iv. Authorization DN/178/2017 for the processing of raw nuclear materials, valid starting with 01.09.2017 until 30.01.2018;
  - v. Authorization DN/179/2017 for the production of nuclear fuel valid, starting with 04.09.2017 until 30.01.2018;
  - vi. Authorization DN/180/2017 for the temporary storage of nuclear raw material, nuclear fuel and radioactive waste, valid starting with 07.09.2017 until 30.01.2018;
  - vii. Authorization DN/10/2016 for the supply of nuclear raw materials, nuclear fuel, radioactive waste, materials of nuclear interest and materials with double use, valid starting with 07.09.2017 until 30.01.2018;
  - viii. Authorization DN/181/2017 for the transport of radioactive materials, valid starting with 10.01.2014 until 09.01.2019;
  - ix. Authorization AN/287/2016 for ownership of unpublished information, valid starting with 29.11.2016 until 28.11.2021.
  - (f) By Assignment Certificate no. FCN ODD06/2017, CNCAN updated the appointment of the Radiation Protection laboratory and dosimeter personnel within FCN Pitesti as Certified Dosimetry Body.
- (vi) Authorizations in the nuclear field for the main office:

- (e) Authorization for the quality management system for management activities in the nuclear field. Authorization no. SNN EX-01/2017 was issued for a period of 2 years, starting with 01.05.2017 until 30.04.2019;
  - (f) Authorization no. PD/222/2013 for ownership of heavy water for Units 3 and 4, valid from 18.10.2013 until 17.10.2018.
- (vii) CNCAN authorized personnel. For Cernavoda NPP branch, the company holds 16 CNCAN permits for management personnel, 7 CNCAN permits for personnel with specific training positions and 54 CNCAN permits for operational staff in the control rooms of the two Units. For the FCN Pitesti branch, the company holds 14 permits for exercising activities in the nuclear field, of level 2.

### (C) Licensed 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 on the basis of certain licenses issued by ANRE in this respect.

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

- d) License no. 5/03.12.1999 for the production of electric power granted through ANRE Decision no. 80/03.12.1999;



#### ANNUAL REPORT 2017

e) License no. 244/26.03.2001 for the production of thermal power granted by ANRE through the Decision no. 341/26.03.2001;

f) License no. 962/21.10.2010 for the supply of electric power granted by ANRE through the Decision no. 2597/21.10.2010.

Both in previous years and in 2017, the company complied with the provisions of the conditions associated to the aforementioned licenses.

License no. 5/03.12.1999 authorizes the company to produce electric power through the commercial operation of the power capacities related to the electric power production units. The license came into force on 03.12.1999 and is valid for 25 years. Through the resolution of ANRE no. 1683/01.11.2007, the license was modified 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 Cernavoda NPP Unit 2.

License no. 244/26.03.2001 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 26.03.2001 and is valid for 25 years. Through the resolution of ANRE no. 1684/01.11.2007, the license was modified to approve the existing conditions related to the license. SNN delivers thermal power to the local heating distribution company – Public Utilities SA Cernavoda, as well as to

some end consumers in Cernavoda town – businesses, social and cultural institutions.

License no. 962/21.10.2010 for the supply of electric power authorizes the company to supply electricity on the energy retail market and come into force on 26.10.2010. By the ANRE Decision no. 2000/23.09.2015, the license was modified for the extension of the validity of the license till 21.10.2020.

#### *(d) Other authorizations*

f) ISCIR regulatory documents;

g) Statements to the National Anti-Drugs Agency;

h) Licenses issued by ANCOM. Cernavoda NPP obtained 3 licenses for the use of electrical radio frequencies from the National Communications Regulating Authority (ANCOM);

i) Fire safety authorizations;

j) Sanitary authorizations.

For environmental protection, the authorizations and certificates were distinctly presented in the report.

#### **4. INTEGRATED MANAGEMENT SYSTEM**



## ANNUAL REPORT 2017

SNN has developed and maintains an Overall Quality Management System that complies with the provisions in force of Law no. 111/1996 and with the applicable Quality Management Requirements in the nuclear field issued by the National Commission for Nuclear Activities Control (CNCAN) and AIEA GS-R-3. The 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; current authorization no. SNN EX - 01/2017 was renewed in 2017 and is valid until 30.04.2019.

The Quality Management System, described in the Manual of Quality Management System, identifies the directions of developing and implementing the management system within SNN Executive and its branches: the Cernavoda NPP and the Nuclear Fuel Plant - Pitesti. The development and evaluation of the Management System (MS) is coordinated by the Department for the Development and Evaluation of the Management Systems (DDESM).

The branches Cernavoda NPP and FCN Pitesti have developed and maintain management systems specific to their activities.

Branch CNE Cernavoda has developed and implemented an Integrated Management System according to the provisions of Law 111/1996, the Norms for Quality Management Systems applicable in the nuclear field issued by CNCAN, Standard AIEA GS-R-3 and International Standards ISO 14001 – Requirements for the Environment Management System, OHSAS 18001 – Cerinte for the Occupational Health and Safety System

and ISO/CEI 27001:2005 – Requirements for the information security management system. The legal and regulation requirements issued by CNCAN and those from the International Standards, voluntarily applied, are included in the documents of the Integrated Management System of CNE Cernavoda.

The quality management system of CNE Cernavoda 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; current authorization no. SNN CNE Cernavoda – 01/2017 was renewed in 2017 and is valid until 30.04.2019.

The compliance with the requirements of International Standards ISO 14001 and OHSAS 18001 was recertified by the certification body SRAC in 2016 (validity until 15.09.2018 for the certificate of compliance with ISO 14001:2004 and 25.04.2019 for the certificate of compliance with OHSAS 18001:2007).

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. 16-041/2016 (valid until 17.09.2018). Component Environmental Management System developed according to the requirements of ISO 14001:2004 has been recertified by SRAC 2013 (valid until 15.09.2018). Component Management System Occupational Health and Safety



## ANNUAL REPORT 2017

(OHSMS), developed according to OHSAS 18001: 2007 was certified by SRAC 2016 (valid until 05.11.2019 provided annual endorsement).

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 FCN Integrated Management System decisively contributed to the nuclear fuel quality proved by a very good combustion degree and zero failure rate.

### 5. 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 potential environmental impact.

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.

The requirements established by the Cernavoda NPP derive both from the application of the regulations specific to the nuclear field and the environmental legislation, as well as from the voluntary adherence to the requirements of the ISO 14001:2004 standard.

Cernavoda NPP has established clear principles underlying the performance of activities that may have an impact on the environment. Below are listed some of them:

- The preparation and performance of any activity will be analyzed in terms of:
  - Effects on ecosystems;
  - Efficient use of energy and resources;
  - Prevention of pollution.
- Cernavoda NPP ensures:
  - The implementation of environmental legislative requirements in all the processes of the plant;
  - 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;
  - 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.
  - The impact on the environment is established based on the assessment of each activity and for each individual work.

The first certification of the environment system was obtained in 2004, its conservation being carried out on an annual basis. The maintenance of the certification is a proof and a guarantee for the fulfillment of the commitments undertaken by the Cernavoda NPP



## ANNUAL REPORT 2017

### ***5.1 Environmental monitoring program at Cernavoda NPP***

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.

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. In the period 1996 - December 2010, over 13000 environmental samples were measured in order to determine the radioactivity concentration.





## ANNUAL REPORT 2017

The types of samples analyzed are the following: air (particles under the form of aerosols, iodine, and water vapors), soil, sediment, atmospheric deposits, food samples (milk, fish, pork, beef and chicken, vegetables, fruits, eggs, cereals) surface water, drinking water, groundwater, rainwater, infiltration water.

Measurements of the external gamma dose are also carried out. A network of 62 monitoring points with thermal-luminescent dosimeters for the measurement of the gamma dose has been established around the power plant and across an area with a radius of 30 Km. Gamma spectrometry analyzes, global beta analyzes and specific assays for the detection of tritium and 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 the NPP is notified by CNCAN under No.LI02/2013 as Testing Laboratory for environmental samples.

Cernavoda NPP is authorized to use water from the Danube River as cooling water, through the Danube - Black Sea Canal, pool I. The hot water is returned to the Danube via the Seimeni Canal or to the Danube-Black Sea Canal, pool II.

Specific chemicals are being used: hydrazine, morpholine, cyclohexylamine for the chemical conditioning of systems, hydrochloric acid, sodium hydroxide, ferric chloride, lime in the technological process for obtaining demineralised water in the Chemical Water Treatment Plant and bioacid as control agent for the microbiological load in the technological process water.

### 5.2. *Liquid effluent physical-chemical monitoring program*

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**.

- 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 microbiological 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.



## ANNUAL REPORT 2017

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. In the impact area of the emissions, the following pollutants are determined: carbon dioxide, sulfur oxides, nitrogen oxides, and suspended particulates.

The purpose of this program is to provide accurate data on the quality of the non-radioactive gaseous effluent, in order to demonstrate compliance with the Environmental Authorization and the Greenhouse Gas Emissions Authorization.

### **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 1996-2017 confirm a much lower emission level

compared to the legal limits and the constraints set by the regulatory body (CNCAN).

### **5.3. Monitoring the potentially radioactive gaseous effluents**

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, water is continuously monitored by the radioactive liquid effluent monitor, which stops the discharge in the event of an alarm. The radioactivity measurements performed on the potentially radioactive water samples are used to estimate the additional dose that a person in the population could receive as a result of these discharges. Annually, for the monitoring of potentially radioactive liquid effluents coming from a unit, about 1,500 samples of water from a unit are analyzed in the laboratory.

Throughout the 19 years of operation of Unit 1 and 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





## ANNUAL REPORT 2017

microSv, being hundreds of times smaller than the dose produced by the natural radiation source, which, for Romania has an average value of 2400 microSv/year.

### 5.4. Management of low and medium active radioactive waste at Cernavoda NPP

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.

#### Monitoring the radioactivity of environmental samples

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);
- water (water from the Danube, soil infiltration water, deep water, water from the Danube-Black Sea Canal, rainwater, drinking water);
- soil;
- fish sediment;
- meat (chicken, beef, pork);
- milk;
- vegetables (lettuce, spinach, radishes, cucumbers, tomatoes, green onions, peppers, cabbage, potatoes, green beans, aubergines);
- grains;
- 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.

The power plant has built and equipped its own Radioactivity Control Laboratory, the Dosimetry Laboratory, where radioactive effluent samples are measured, as well as a Radioactive Waste Characterization Laboratory. The laboratories carrying out radioactivity analyzes in the environmental samples are accredited by CNCAN (National Commission for Nuclear Activities Control), in compliance with the requirements of the law. In addition, the laboratories are included in inter-comparative programs organized by the IAEA or the European Commission and International Associations of accredited laboratories for those types of measurements.

#### 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.

**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.

**b)** For works in fields with high levels of radiation, a rigorous work planning process is established, which demonstrates that all necessary



## ANNUAL REPORT 2017

factors have been taken into consideration, and that the radiation doses will be consistent with the **ALARA\*** principle.

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

*\* **ALARA** = As Low As Reasonably Achievable - at the lowest possible value. 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.*

### Dose limits

The dose limits used at Cernavoda NPP are in line with the Radiological Security Fundamental Norms (NSR-01/2002) and the recommendations of the International Commission on Radiological Protection (ICRP) set out in publication 60.

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.

### 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, the Radiation Protection Program covers a main element: the work premises to be monitored are set out, in order to provide information on the radiological hazards in the power 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.

### 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.



## ANNUAL REPORT 2017

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.

### 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 Radiation Protection Program.

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.

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 supplies 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.

### 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.



## ANNUAL REPORT 2017

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 NSR 06/2002 norms 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 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.

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 1999 - 2015 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.

## 5.5.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 solid-liquid mixtures.

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 and flammable solid-liquid mixtures, different criteria are being 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).

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

Organic liquid radioactive waste is stored in the service building and is subsequently solidified in order to eliminate potential flammability hazards.

Some solid waste is compacted with a hydraulic press in order to reduce its volume.

The storage of solid or solidified radioactive waste is ensured throughout the period of operation of the power plant under optimum security and



## ANNUAL REPORT 2017

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 dry 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, throughout their lifetime, for 50 years. To date, 7 modules have been built.

### ***Environment protection activity at FCN Pitesti***

Within FCN-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, FCN-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 14001:2005 standard and are the result of applying within FCN the Environment

Management System that is part of FCN's Integrated Management System.

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

The Environmental Authorization issued for the operation of the "Nuclear Fuel Plant" branch of Pitesti within the National Society "Nuclearelectrica" SA through Government Decision no. 1061/2011 and published in the Official Gazette no. 793 dated 09.11.2011 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.

FCN-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 and Climate Change and the subordinated institutions, the National Commission for Nuclear Activities Control, the Nuclear Agency and Radioactive Waste etc.)

FCN-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 FCN 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



## ANNUAL REPORT 2017

Communication Protocol concluded between SNN SA and the Ministry of Environment and Climate Changes 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, FCN-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 FCN, 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. FCN-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 FCN-ICN platform and in its vicinity is performed by ICN-Pitesti with the contribution of FCN, in compliance with the *Environment Radioactivity Monitoring Program* of the ICN-FCN Pitesti platform, approved by CNCAN.

FCN-Pitesti carries out the measurements and monitors all transports of radioactive materials in the form of UO<sub>2</sub> sintering powder, nuclear fuel bundles, and 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 FCN Pitesti

The activity of protection against ionizing radiation (radiological protection and radiological security) in FCN is carried out based on ***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 and Family (MSF). At the same time, the protection activity against ionizing radiation is designed based on the radiological risks characteristic for a CANDU nuclear fuel plant based on natural and depleted uranium. Pursuant to them, within the FCN, as nuclear goal, only *personnel professionally exposed to ionizing radiation* is working, with the FCN managing establishing and maintaining a ***Radiation Protection Program*** adequate for the specific nature of the plant. For the application of the ***Radiation Protection Program***, FCN 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, once every two years, the *Sanitary Authorization* for operation in the nuclear field from the Arges Public Health Department.

For the measurement of *individual external doses* within FCN, the Laboratory of Radiation Protection and Personnel Dosimetry, re-accredited by CNCAN as a dosimetric body accredited in 2011 (ODA04/2011) is operating. Dosimetric and Radiation Protection measurements are also being carried out in the Laboratory of Radiation





## ANNUAL REPORT 2017

Protection and Personnel Dosimetry, with apparatuses, equipment, devices, devices and sources of radiation included in the operating authorizations of FCN-Pitesti.

The radiological security activity takes place within the Radiation Protection, Nuclear Security and Environmental Protection Service, the Radiation Protection and Personnel Dosimetry Laboratory.

### **Radiation protection means within FCN**

In order to achieve the protection of FCN 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, FCN has under its own endowment *collective radiation protective equipment* and a *modern ventilation system*.

In the same context, within FCN, 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 monitoring of the working environment**

#### **❖ Monitoring airborne particulate matter with uranium/radioactive aerosols**

It takes place in FCN areas where work with open radiation sources is being carried out: UO<sub>2</sub> powders, crude and sintered UO<sub>2</sub> 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**

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)**

The measurement of dose rates and doses is carried out in particular at workplaces where significant quantities of nuclear material (containers with UO<sub>2</sub> powder, crude and sintered pills of UO<sub>2</sub>, nuclear fuel elements and bundles) are present, but also within the perimeter of FCN by means of direct measurements or by thermal-luminescent dosimetric (TLD) systems.

### **Individual radiological monitoring**

#### **❖ Measuring, assessing, recording and evidence of individual external doses**

The entire personnel of FCN 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**

*The individual internal dose* is determined only for the personnel exposed directly to open sources of radiation, using the results of the Central



## ANNUAL REPORT 2017

Aerosol Sampling System. By summing up the *annual individual internal dose* with the *annual individual external dose*, the *total annual individual dose is obtained*.

The *average annual total individual dose* collected by FCN'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 limit of **18 mSv/year** imposed by FCN as of 01.01.2013, according to the ALARA principle.

### ❖ Monitoring internal contamination

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

## 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 FCN.

## Training the personnel professionally exposed within FCN 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 issuing of the activity exercise permit in the nuclear field of level 1, for the domain of Nuclear Raw Materials, specialist area Manufacture of Fuel Elements. The entire personnel of FCN holds *Permits for exercising the activity in the nuclear field of level 1*, issued by FCN. These are endorsed annually and renewed every 5 years.

A number of 20 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.

FCN-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 based on the approvals issued by CNCAN in the periods 12.05-16.05.2008 (13 persons) and 16-20.09.2013 (20 persons) at the registered office of FCN-Pitesti with lecturers from the National Center for Training and Specialization in the Nuclear Domain IFIN Magurele.

## 6. RESULTS AND KEY PERFORMANCE INDICATORS

### 6.1. PRODUCTION OF ELECTRICITY AND HEAT





## ANNUAL REPORT 2017

During the reporting period, the process of production of electricity and heat was carried out under normal conditions.

- ❖ At U1, the monthly capacity factor was **99.09%**, with an annual average of **97.14%** and **473 995 MWh** were delivered, with a net annual total of **5 485 440 MWh**.
- ❖ At U2, the monthly capacity factor was **90.72%**, with an annual average of **89.72%** and **438 078 MWh** were delivered, with a net annual total of **5 094 710 MWh**.

**The refueling program at U1 was achieved 100% (55/55).**

**The refueling program at U2 was achieved 94.34% (50/53).**

In December 2017 there was an unplanned outage (controlled stop) at Unit 2, from December 07, 2017 (U2ON27), duration 60 hours (2.5 days):

This Unplanned Outage was required to remedy the deficiency (failure of the Morse clutch from the ADA screw gearbox) of the Mobile MID Bridge (A).

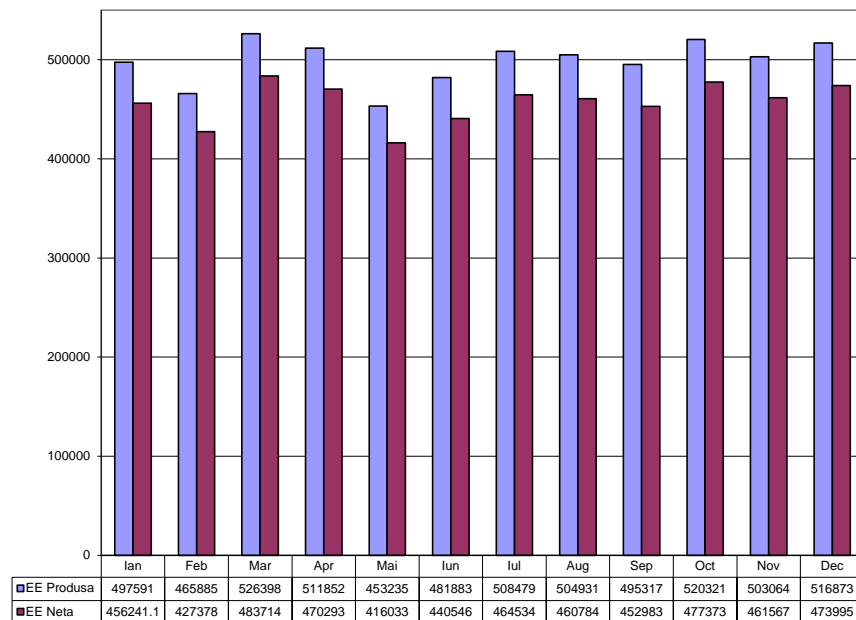
The turbine was triggered manually, with the desynchronization taking place on December 07, 2017 at 17:43.

The synchronization of the Generator at S.E.N. took place on December 10, 2017 at 06:12.

The main indicators of the production activity are shown in the following graphics.

## ANNUAL REPORT 2017

### Electricity produced/ net U1 (MWh)



### TOTAL 2017

E produced

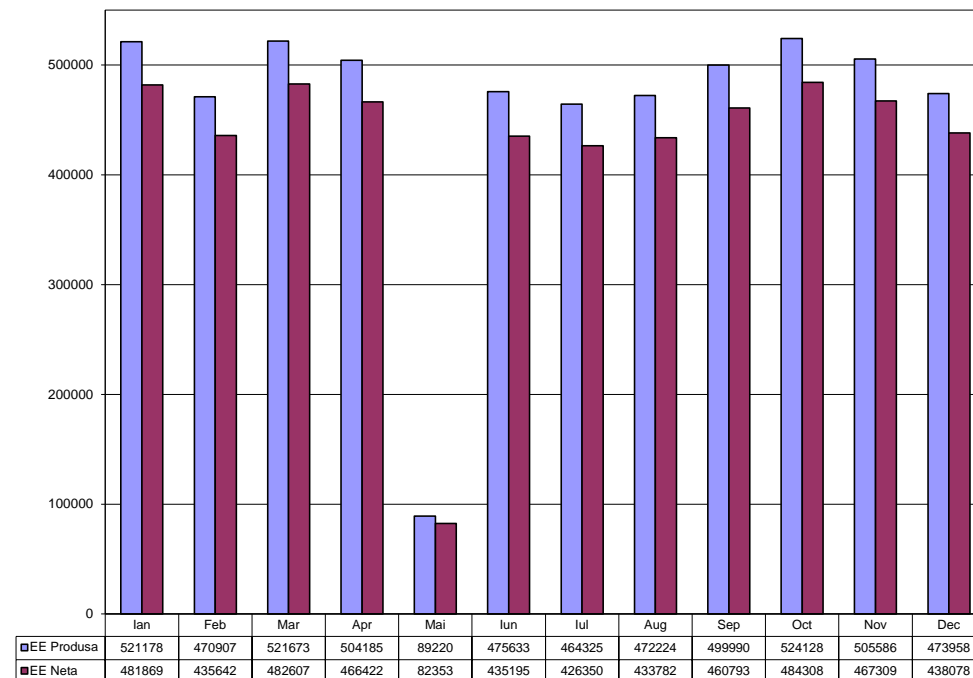
**5 985 827**

Net E

**5 485440**

Own average technological consumption: **8.36%**

### Electricity produced/ net U2 (MWh)



### TOTAL 2017

E produced

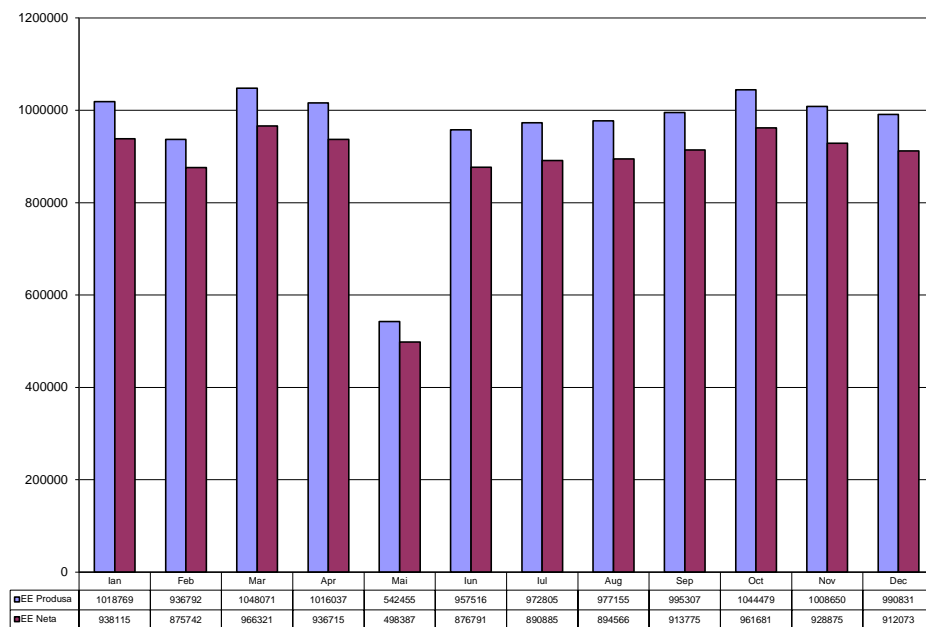
**5 523 037**

Net E

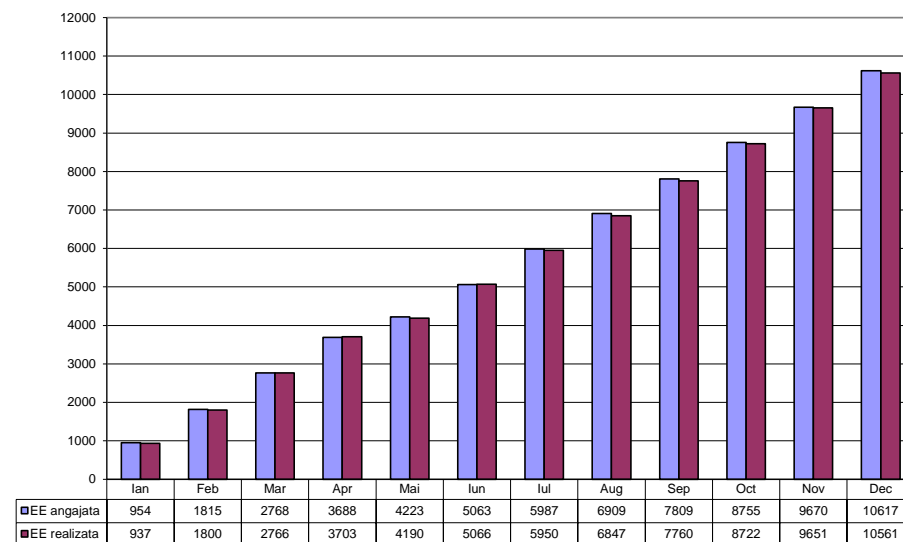
**5 094 710**

Own average technological consumption: **7.76%**

## ANNUAL REPORT 2017



## Quantity of electricity programmed/produced (for sale) (thousands of MWh)



## TOTAL 2017

E produced

**11 508 865**

Net E

**10 580 149**

## OWN ELECTRICITY TECHNOLOGICAL CONSUMPTION (INDICATOR 5):

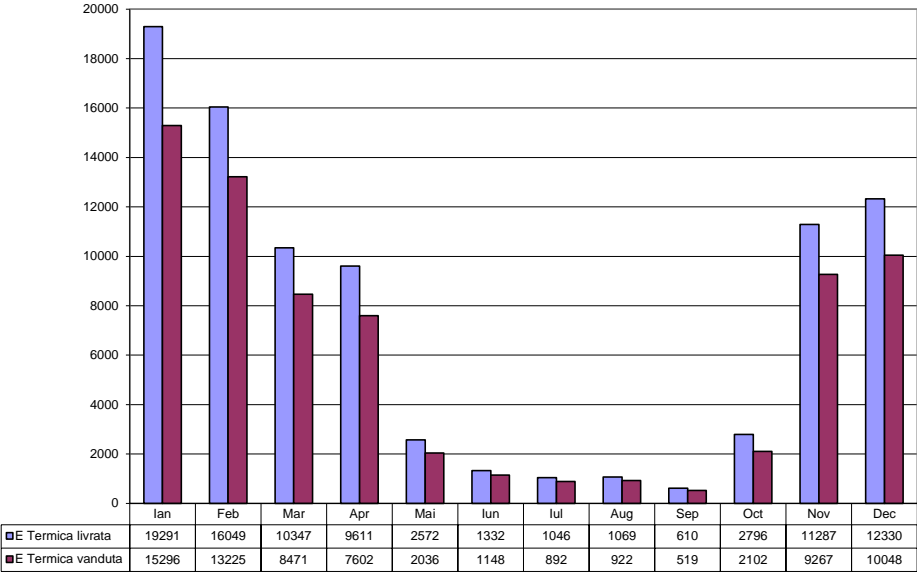
Accomplished cumulatively in 2017: **8.06%**      Provided in the project: **max. 10.00%**

Achievement percentage

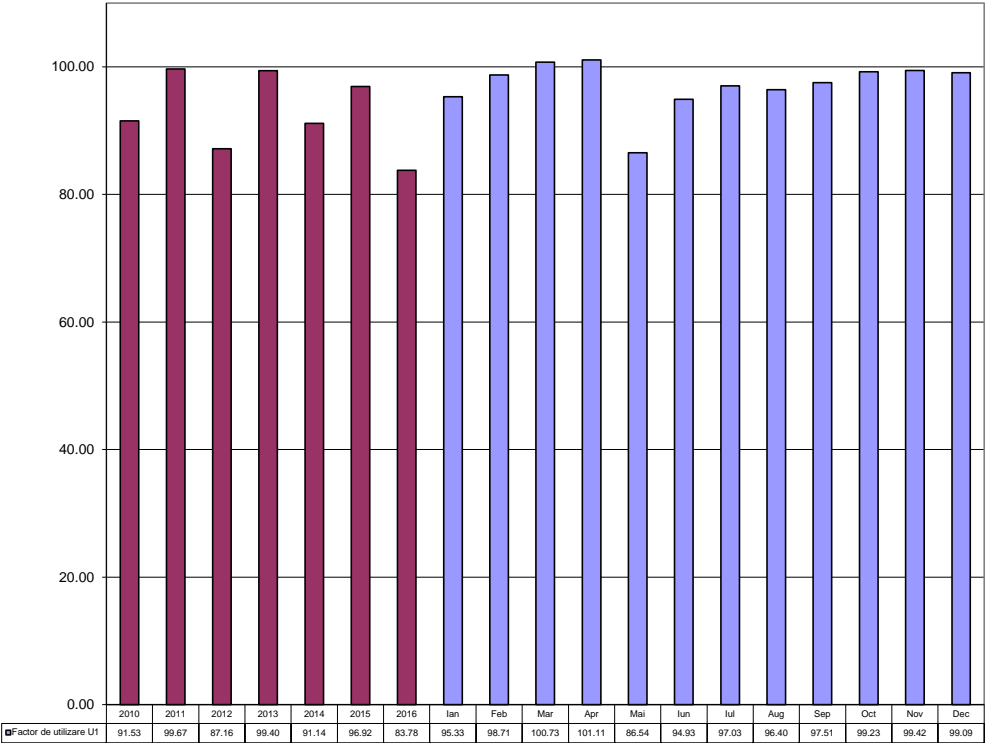
**~ 99.46%**



ANNUAL REPORT 2017  
 Thermal energy delivered for heating/ sold (Gcal)



Installed capacity factor U1 (%)



TOTAL 2017

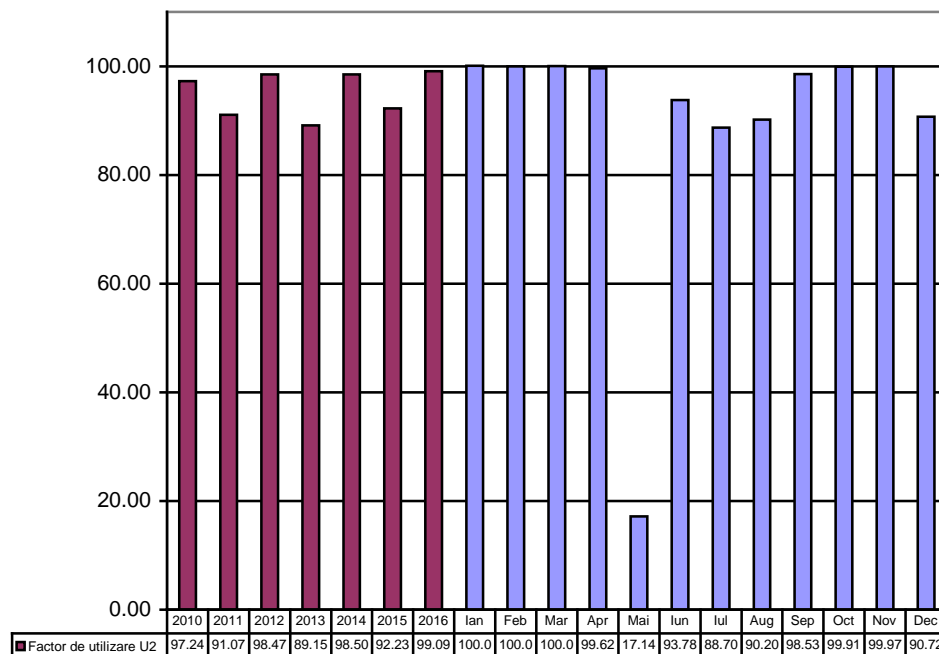
Thermal E delivered	Thermal E sold
<b>88,339</b>	<b>71 527</b>

Expected	Cumulated 2017 U1
<b>96.00</b>	<b>97.14</b>
(internal target)	NPP



## ANNUAL REPORT 2017

### Installed capacity factor U2 (%)



Expected

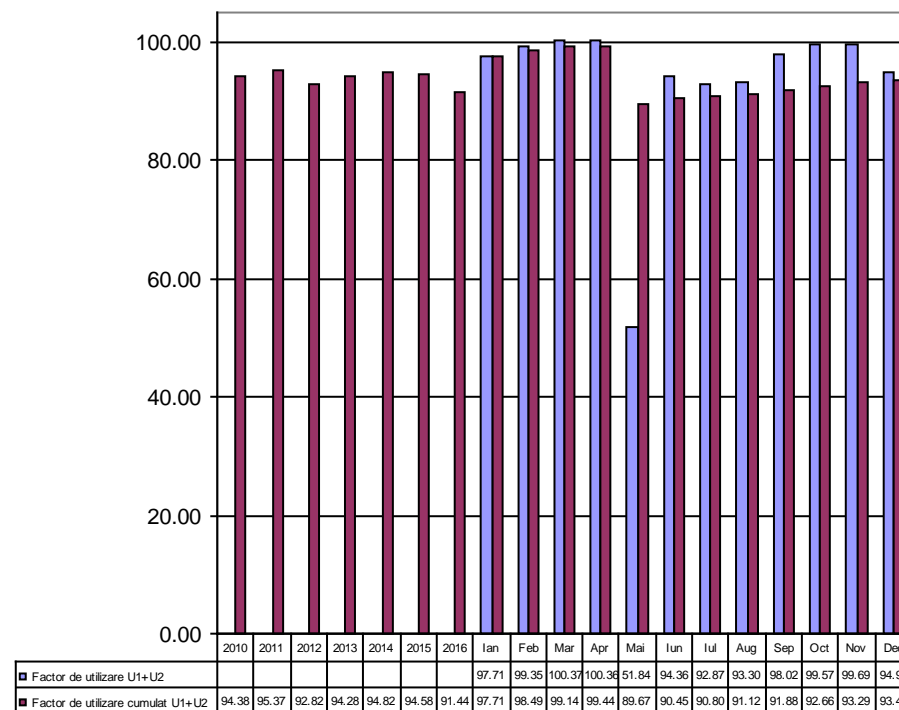
**91.00**

(internal NPP target)

Cumulated 2017 U2

**89.72**

### Installed capacity factor U1 + U2 (%)



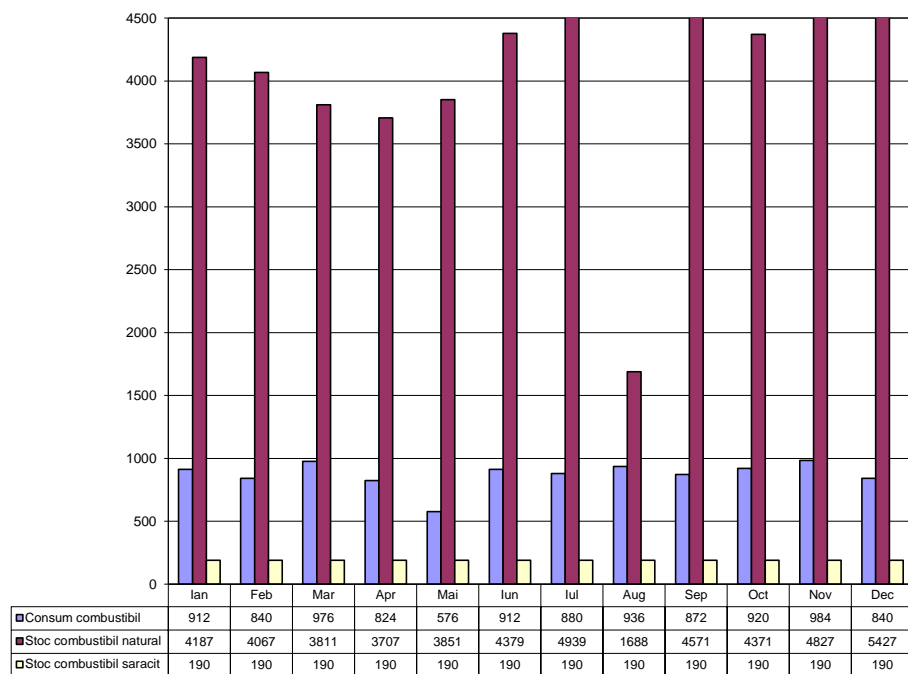
### INSTALLED CAPACITY FACTOR U1+U2 (%) (INDICATOR 4):

Cumulated 2017: **93.43**

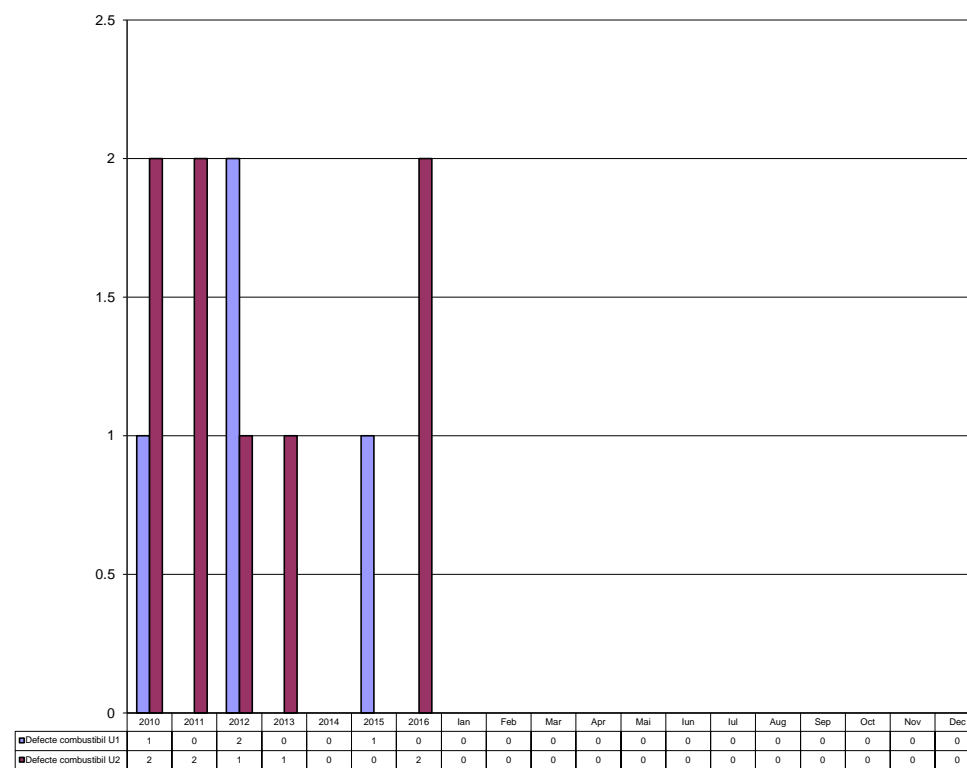
Expected 2017: **min 80.00**

## ANNUAL REPORT 2017

### Fuel consumption U1 + U2/ Fuel stock (bundles)



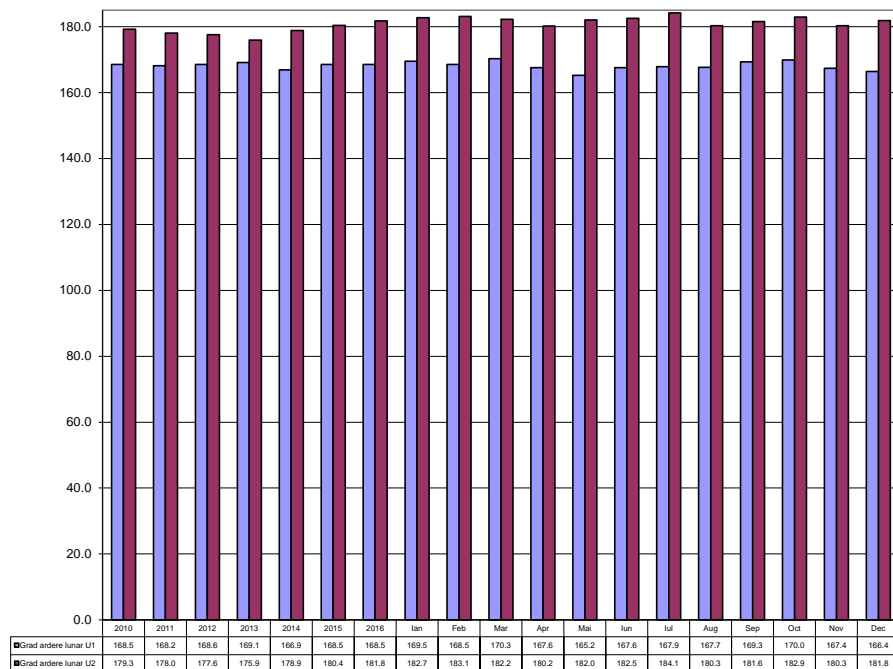
### Fuel defects confirmed U1/U2 (#)



Cumulated consumption 2017: **10 472**

## ANNUAL REPORT 2017

### Nuclear fuel burn up degree (MWh/KgU)



### NUCLEAR FUEL BURN UP DEGREE (INDICATOR 3):

Cumulated 2017:

**174.11**

Provided in the project:

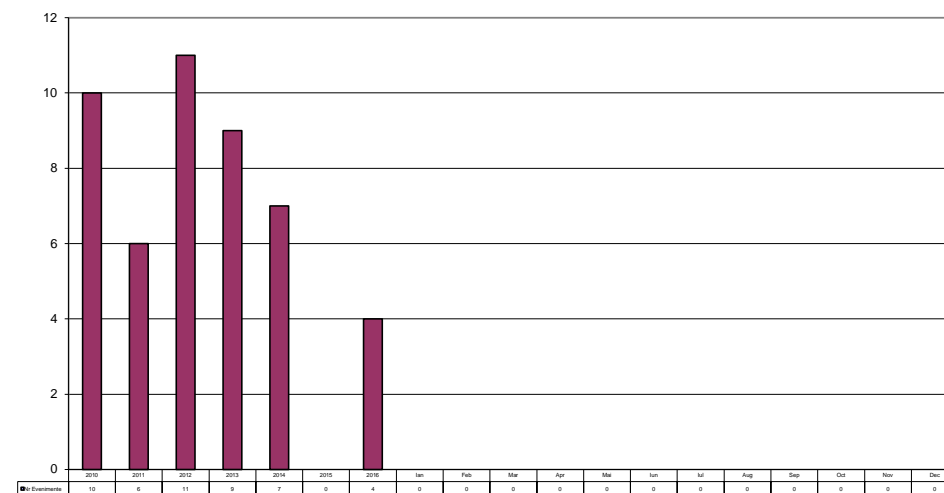
**min 156.00**

## 7. NUCLEAR SECURITY ASPECTS

The operation activity was conducted without events that might impact the nuclear security, its own personnel, the population or the 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 2017: **1**

## ANNUAL REPORT 2017

### Radiation Protection/Security and Health at Work/Fire Safety Aspects

#### Radiation Protection of the personnel, the population and the 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 2000 times lower than the legal dose limit.

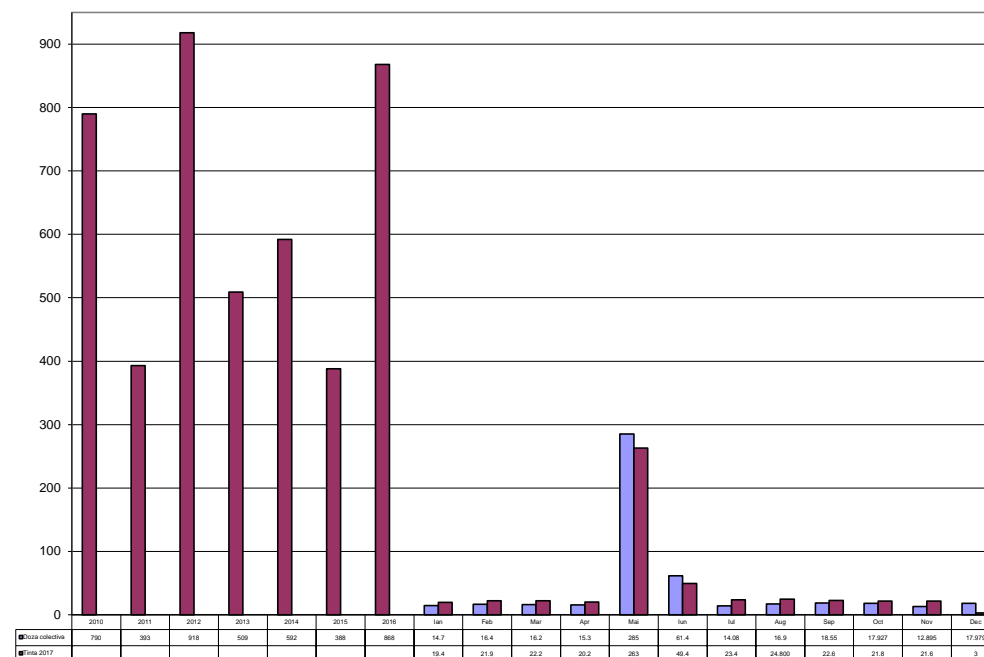
During December 2017, the routine individual dosimetry surveillance was ensured for 2163 professionally exposed workers (CNE employees and contractors) and 2810 biological samples were analyzed.

#### Information regarding the individual dose monitoring and control (for professionally exposed personnel)

Run. No.	ALARA Indicator	Measuring Unit	Value
1	The maximum legal limit of an individual dose	mSv/year	20
2	The maximum administrative limit of an individual dose	mSv/year	14
3	2017 target for the maximum individual dose	mSv/year	6.5

4	The maximum cumulated individual dose since the beginning of 2017	mSv	5,717.
---	---	-----	--------

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



Cumulated 2017: Annual limit:

507.47

530

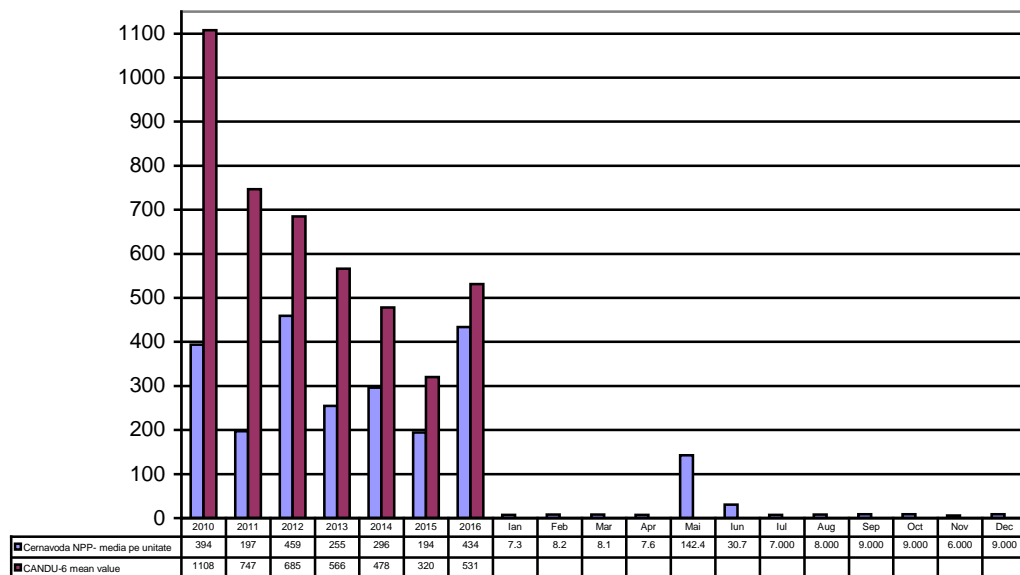
**Note:** The collective dose per the power plant, cumulated from the beginning of the year is calculated as the sum of individual doses.



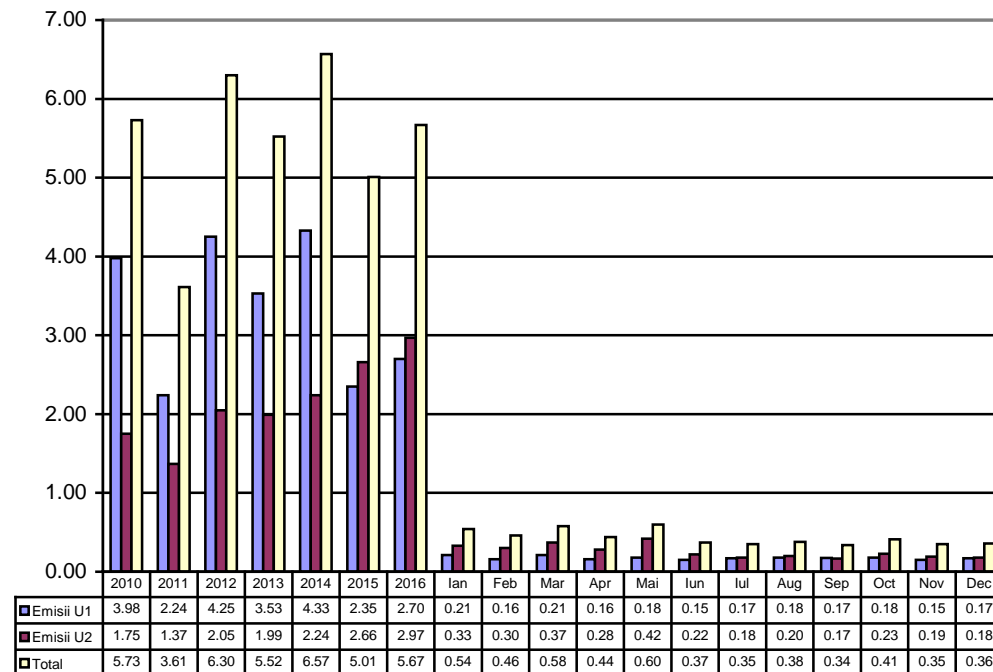


## ANNUAL REPORT 2017

### Collective dose - compared to the annual average in the CANDU-6 power plants (Om\*mSv/ unit)



### Radioactive emissions in the environment U1+U2 (microSv)



Total 2017: Annual limit:

**5.17**

**8.50**

*Dose restriction for Cernavoda NPP = 100 microSv/year/unit + 50 microSv/year DICA*

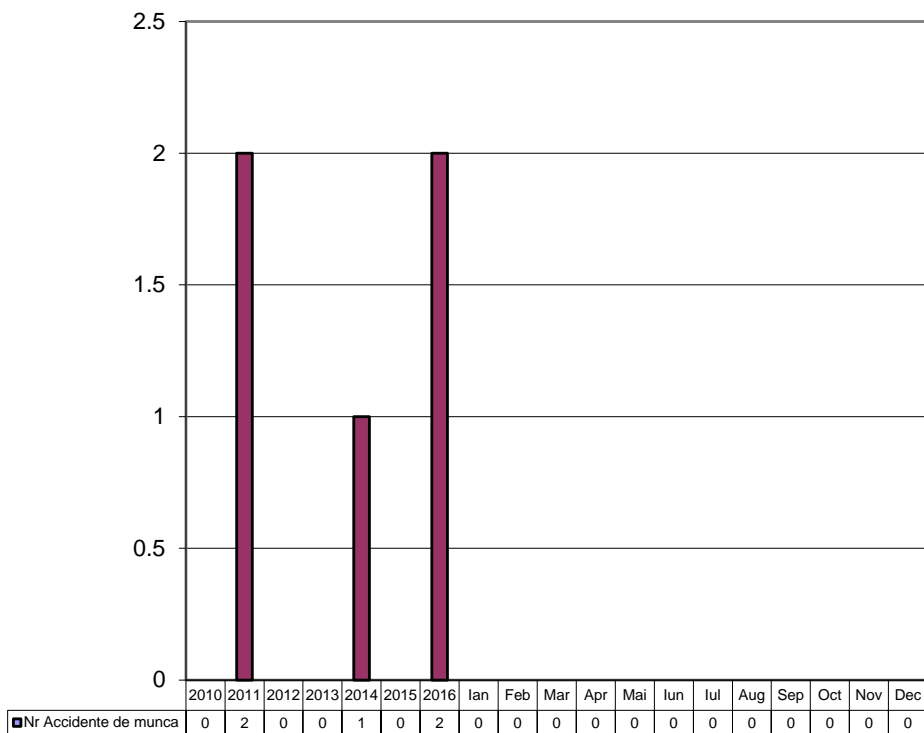


## ANNUAL REPORT 2017

The legal limit for the population (according to the Fundamental Radiation Protection Norm **NSR01**) = **1000** microSv/year

## Security and Health at Work/Fire Safety Aspects

### Work accidents (#)



**Note:** The cause for the occurrence of accidents in 2016 is lack of attention while traveling.

No fires or beginnings of fires have been recorded from the beginning of 2007 and to date.



## ANNUAL REPORT 2017

### 9. 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.

During 2017, progress was made regarding the development of the management system of the integrated risks at the Company's level, among which we summarize the following:

- ❖ Initiating the drafting of a policy for managing the procurement risk;
- ❖ Initiating the inclusion in the provider selection process of their economic-financial analysis;
- ❖ Drafting performance risk analyses regarding the services provided by suppliers and their classification in risk classes;

- ❖ Completing and approving the internal norm for managing the commercial counterparty risk on the PC-OTC market, within the project of initiating the trading on this market;
- ❖ Completing and approving the internal norm regarding the management of the banking counterparty risk, in order to optimize the SNN exposure to this risk, both when making placements in deposits and when receiving letters of guarantee from traders or suppliers;
- ❖ Completing the CASCO strategy and insurance policy of the SNN car fleet and its application for purchasing insurance services;

By the nature of the performed activities, the Company is exposed to different risks, presented hereafter. The SNN leadership follows to reduce the potentially negative effects associated to those risks on the Company's performance.

The nuclear and radiological risk indicators were also mentioned in 2017 at very low levels compared to the limits requested by regulations, which positions the Nuclear Plant from Cernavoda among the most secure in the world.

The other important risk categories have evolved as follows:

#### ***Market risk***



## ANNUAL REPORT 2017

The market risk represents the variability of the Company's results generated by the fluctuation of the energy price and raw materials and materials.

The SNN activity for selling the electrical energy, the same as of other energy manufacturers, is influenced by the evolution of the energy price and gradual de-regulation of the market.

The gradual Freeing Calendar for the regulated market, provides that until the end of 2017 the market shall operate freely depending on request and offer, and the regulating prices shall disappear. Thus, starting with January 01, 2018, the electricity market is fully liberalized. For captive consumers with Last Instance Suppliers, there is the possibility of changing the supplier and switch to the competition market or remain with the same supplier.

The market price on the regulated segment of the market is not influenced by the ratio between supply and demand, but is set by the regulator (ANRE).

On the other hand, the competition market price is influenced by a lot of factors such as: consumption evolution on the local market and on the regional markets, corroborated with the process of

aligning the day ahead electrical energy market in Romania by complying with the coupling mechanism through price, of the markets from the Czech Republic, Slovenia and Hungary, the structure of the energy market and the competition capacity of the main manufacturers, the production evolution out of renewable sources and its supporting graphics, the increase of the inter-connection capacities.

The Company is exposed to a price risk on the competition market. Considering the cost structure and the rate of the fixed costs in the total costs which may affect the profitability under the conditions of maintaining certain lower prices for an extended period of time, the price risk may become significant and may have a big impact on the operational performance.

Starting with the second quarter of ~~2014~~ there was an increase of the traded energy volumes concluded on the competition markets, and a decrease of transactions on the regulated market and on the spot market,

The average price obtained by SNN was below the level of the regulated price until December 2016, in the first 3 months of 2017 it was over the regulated price, in April-May it was again below the regulated one, and from June 2017 to the end of the year it increased again.



## **ANNUAL REPORT 2017**

Starting with September 2016, the prices on PZU were in average a lot higher than the prices of the bilateral contracts concluded on OPCOM implemented by SNN, especially in January – March 2017, and starting with December 2017, therefore resulting a very high volatility of prices on the spot market, which induces a high price.

The advantages of reducing the exposure on the spot market, where price volatility is very high, there is: security of income and predictability for the following years, obtaining average prices on the market, a clear trading policy decreasing the market risks and complying with the operating frame of the electrical energy market, transparent, public, centralized and non-discriminating.

In the same time, SNN is exposed to the risk of price increase for raw materials and materials, caused by the reduced number of providers and in lack of long-term contracts, which may provide price stability. As a risk handling strategy, the following measures are taken: contractual clauses negotiation in order to obtain a fixed price for the entire period of the contract, where the law allow it or for the possibility to review prices under clearly established conditions and based on supporting documents; contracts conclusion on a long term, according to the current law, identifying new providers.

2017, especially the first quarter, was characterized by a high volatility of the market, a situation that affected all the market operators. Compared to other manufacturers which production is by season or connected to the balancing opportunities of SEN, the Company also constantly produces and is more exposed than other manufacturers, to the market risks. Nevertheless, the SNN financial statements prove that the Company provided a good control of those risks, managing to minimize the operational results, the differences compared to 2016 being mostly due to financial transactions and not being serious from the point of view of efficiency of investors.

### ***Credit and counterpart risk***

Financial assets, which may subject the Company to credit risk are mainly trade receivables, cash and cash equivalents and bank deposits. For Limitation of counterparty risk exposure limits are set domestic assets placed at different financial institutions (banks).

The counterparty risk represents the risk of the business partners not to act in accordance with the terms and conditions stipulated in the contracts or failure to fulfill the established things.



#### ANNUAL REPORT 2017

Currently, SNN trades on term markets (PCCB-LE, PCCB-NC, PCSU), allowing to know the counter-party only at the end of the tender. For mitigating the counter-party risk, the contractual terms provide the coverage with securities (PCCB-LE, PCCB-NC – payment in advance, letter of bank guarantee), reducing counterparty risks.

The company considers the entering on PC-OTC market administrated by OPCOM, allowing the selection of clients based on their credit risk analysis, following to conclude contracts only with solvable partners. In 2017, risk limits were set for several counterparties on the PC-OTC, and SNN negotiated with them regarding the contractual conditions related to this market.

The counter-party risk consists also in the performance risk (contract performance). On the PCCB-LE market, under the conditions of price volatility, there are situations when the counter-party may opt for the termination of the contract and payment of such termination penalty (the counter-value of the energy delivered in a month), and buying the amount of energy for the market, more favorable price. For SNN, this situation also has the risk of reselling the entire non-delivered amount for the market price, under the initial contract prices or for the Balancing Market, not very beneficial.

The termination risk is higher for the contracts concluded for longer periods of time, because in their case, the market price should drop less than in case of short-term contracts, so that the termination can be more beneficial for the buyer. Also, the very high price oscillations and the records registered on PZU in the beginning of 2017 caused huge difficulties for most of the market participants, and they could not comply with their ongoing contracts. Nevertheless, no contracts were terminated in 2017.

On the PC-OTC market, in case of termination, the counter-party must pay a termination price, equal to the difference between the contract price and the market price, in order to cover the loss caused by replacing the contract for a non-beneficial price, so theoretically the termination risk is very low.

The company manages the counter-party risk also by monitoring the cash-in on term of its receivables and by relevant measures in case of lack of payment, including recovery measures through litigations. The limits shall be monitored in order not to exceed, therefore decreasing the counter-party risk in relation with bank institutions. Also, in case of contracts with significant value and/or products/services provided of high importance, the respective counter-parties are periodically monitored in order not to affect the activity of the organization and in order to anticipate



## ANNUAL REPORT 2017

the performance issues in complying with the contractual obligations. The reduced level on uncertain receivables prove an effective management of those risks.

### *Liquidity and cash - flow risk*

Liquidity risk is the risk that the Company could face difficulties in fulfilling the obligations associated with the financial debts which are settled by cash or transfer of another financial asset.

The company applies a prudent management of the liquidity risk by maintaining a proper proportion of cash an equivalent in cash in current accounts and bank deposits according to maturity terms. The company has enough resources to fulfill its obligations to third parties: banks, suppliers, State, employees, etc. Moreover, the current liquidity indicator is situated on an exceptional level, resulting that the liquidity risk for SNN is extremely low.

### *Currency risk*

The currency risk represents the market risk specific to transactions in a foreign currency, materializing in case of credit facilities contracted in a foreign currency and service imports, utilities and materials. The Company is exposed to the volatility of EURO, USD, CAD currencies.

The income and loss from exchange rate, performed and not performed are registered in the loss and profit account of that year. During the next period shall be analyzed the opportunity to use financial instruments for decreasing this risk.

### *Interest rate risk*

Interest rate risk is a market risk. The company's cash flow is affected by the variations of the interest rate mainly due to long term loans. These loans have a variable interest rate determined on the basis of the reference index and fixed interest rate margin. The interest risk is lower because the fix margin represents the main rate from the interest rate, while the variable part, as it shall manifest high unfavorable volatility, shall be attenuated by deposits interests for which the respective trend shall be favorable, resulting a hedging effect determined by the very good Company liquidity.

### *Competition risk*

It is a specific risk for each business, lower or higher depending on the number of competitors, profit margins, used technology, input and/or exit limits on the market, the regulation level etc.



## ANNUAL REPORT 2017

Also, due to the alignment of day-ahead market (“PZU”) of Romania, in compliance with the coupling mechanism of the market price of the Czech Republic, Slovenia and Hungary, SNN is exposed to increased regional competition generated by future improvements, refurbishment, extensions and new constructions expected to be made by the producers of the national electricity market.

As a specific characteristic of the nuclear energy, the cost of electrical energy produced from nuclear sources is estimated to remain lower than the cost of production facilities based on coal or natural gas, which are very sensitive to the increase of the fuel price and the costs regarding the compliance of the regulations regarding the environment protection (e.g. carbon dioxide emissions).

The integration of energy markets is a Europe-wide strategic objective assumed by all Member States of the European Union. Given the higher final prices in the region, electricity trading outside Romania will continue to be an opportunity for local players. As a result, the decrease in domestic consumption is expected to be partially offset by exports, given a slight increase in production.

One of the factors that may mitigate these risks is to consider negotiating of long-term contracts with predefined prices and specific commercial terms on liquidation and contractual penalties in order to reduce the volatility of the collection period by providing the necessary cash flow operations and investments.

### *Macroeconomic and legislative risks*

The legal risk (regulation risk) is represented by the unpredictability of the internal and/or external legal frame, with a consequence of a difficult compliance with its/ their requirements. In SNN there is a risk which may manifest regarding the large number of regulations and requirements issued and requested by national and international regulators and /or professional associations.

Possible changes may refer to the requirement, by local and central authorities, and/or by the authority regulating the energy field (“ANRE”), through the secondary law, of new contractual provisions or fiscal amendments.

Effects of manifestation of the legislative risk:

- (a) Un-estimated increase of production costs, which may determine the drop of profit margins.





## ANNUAL REPORT 2017

- (b) A significant organizational and financial effort for the implementing, compliance and assurance of compliance on continuous bases of the legislative frame and requirements of the professional organizations governing the activity of the Nuclear Plants.

One of the risks manifested starting with 2017 was represented by the proposal of modifying the fees applied by the regulator of the electricity market, ANRE, from 0.08% to 1% of the turnover, but there was no modification until the beginning of 2018.

### ***Operational risk***

The operational risks are associated with the risk of registering a loss which shall result either from the use of certain processes, persons or inadequate internal systems or that didn't comply with their function accurately, or from external events. The operational risk includes the legal risk (legal).

The operational risk is managed and controlled adequately, at the highest levels of international practices, like distribution (for all hierarchical levels and all organizational entities of SNN) with specific instruments (e.g.: protection barriers, redundant systems and insurance frame (and management) for the business

continuity, internal regulation frame, checks, approval levels, continuous preparation of the personnel, permanent monitoring of the risk levels and implementing adequate control and corrective measures etc.).

Through the management and control methods of those risks, one can see:

- (c) A management frame providing the complete identification and addressing of operational risks;
- (d) The use of risk information collected to improve the control mechanisms (lessons learnt);
- (e) Good planning and development of preventive maintenance activities for checking the nuclear risks, as well as for reducing the number of hours of unplanned interruptions;
- (f) Planning and posting activity interruptions.

An impact of the operational risks consists in the cost of unbalances, resulting from the inefficient prognosis of production or out of technical reasons (internal or external) which cause unplanned interruptions.

### ***Risk Insurance***



## **ANNUAL REPORT 2017**

The main insurance policies in force are Material Damage Property (“MD”), Third-Party Liability (“TPL”) and D&O.

The MD policy, is concluded with Nuclear Risk Insurers Ltd., the biggest global provider of insurance capacity, with the support of the London market, including the Lloyds, the Romanian Insurance Pool for Nuclear Risks and European Mutual Association for Nuclear Insurance, EMANI. The insured amount is 1,560,000,000 USD, covering only the buildings from the protected perimeter, for Unit 1 and Unit 2 CNE Cernavoda. The other administrative buildings outside the protected perimeter are covered by the premium.

The TPL policy was concluded with Nuclear Risk Insurers Ltd. (co-insurance with the Romanian Insurance Pool for Nuclear Risks). The allowance limit in case of nuclear accident amounts to 300,000,000 SDR. The total value insured by the MD and TPL premiums amounts to 2,004 mil. USD.

Insurance policy of D&O is concluded for a sum insured as approved corporate (3 mil. EUR for each director and that director with contract terms, limits and units are determined based on the number of managers and executives including politics and seven administrators and two directors present).

The component of the NRI consortium, for MD and TPL and the list of re-insurers for D&O, reveals that the integral part of these consortiums are the insurers and re-insurers of first class, with a maximum trust level.

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.

## **Perspective Elements**

As it concerns the perspective of energy sales on medium and long term (up to three years) we consider, based on the data related to more developed European energy markets, that the price competitive market will not undergone any significant changes in terms of increasing or decreasing ample.

The new electricity market context leads to the necessity to identify new investment opportunities including by diversifying the activity portfolio in activities included in the electricity value chain, for reducing the business risk and assuring a proper efficiency adequate to the own capital.



## ANNUAL REPORT 2017

Continuation and development of Project Units 3 and 4 Cernavoda NPP may create favorable perspectives on long term for SNN, both regarding the recovery of the assets already invested in the project and some additional incomes which may be obtained from services (operation), namely goods supply (supply of nuclear fuel bundles).

Equally, refurbishment of Unit 1 project is a project whose success depends essential for maintaining the production capacity in the future at a level similar to that of today.

### **Factors that may influence liquidity**

Among the factors that may affect the company's liquidity in the future, we mention:

- Energy prices on the competitive market sale;
- The price of the main raw materials used by the company in the current activity;
- Fluctuations in interest rates and the exchange;
- The volume of investments to maintain and those to develop;
- The level of taxation, including the introduction of new taxes.

There are many internal and external factors that may influence the company's liquidity, but on short and even medium term, the company has a very good liquidity.

### **Thematic aspects: environmental issues**

#### **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.



## ANNUAL REPORT 2017

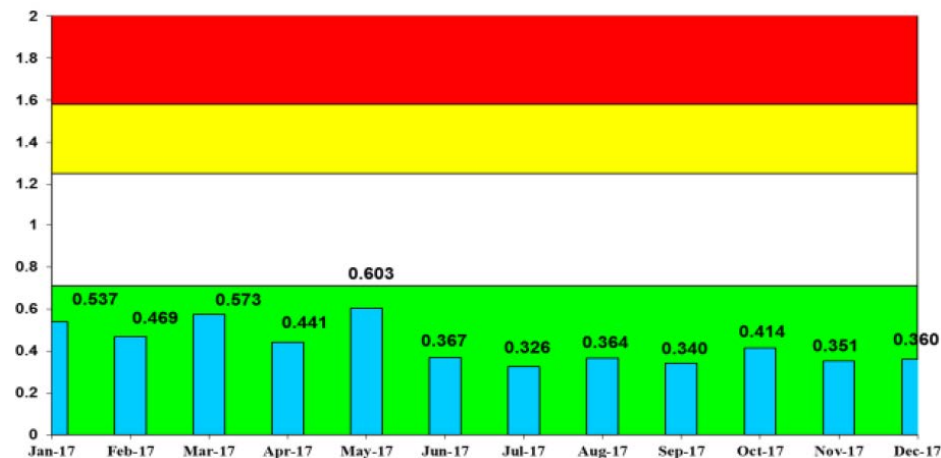
Actual discharges of liquid and gaseous effluents are controlled by careful operation of the power plant systems in compliance with the operating procedures.

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 (150 microSv/year) and the internal administrative limits (8.5 microSv/year). As can be noted from the table and graph below, 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.

**Emisii radioactive in mediu (microSv)  
U1& U2**

Tinta 2017 (prag strategic)	Realizat 2017	Tinta 2018 (prag strategic)
8,5 $\mu$ Sv	5.145 $\mu$ Sv	8,5 $\mu$ Sv



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. By implementing the Environment Radioactivity Monitoring Program, in 2017, a total of 1171 samples were analyzed from around the plant, across an area with a radius of 25 km. In most cases, these measurements did not reveal the presence of CANDU radionuclides in the Cernavoda NPP environment,



## ANNUAL REPORT 2017

except for tritium detected in locations found in the immediate vicinity of the power plant. The concentration of tritium was maintained at levels comparable to those of previous years.

### Waste Management Strategy at Cernavoda NPP

In compliance with the Law 111/1996 on the safe deployment, regulation 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 and the Norms regarding the classification of radioactive waste, issued by the Order of the President of CNCAN no. 156/2005, Cernavoda NPP is responsible for the management of 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 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 the specific information related to radioactive waste in terms of the volume produced and the characteristics thereof to CNCAN and AN&DR according to the requirements of the mentioned norms, in force, for supplementing the national database and elaborating Romania's report for the European Commission (in compliance with the provisions of Directive 2011/70/EURATOM of the Council of the European Union of 19 July 2011).

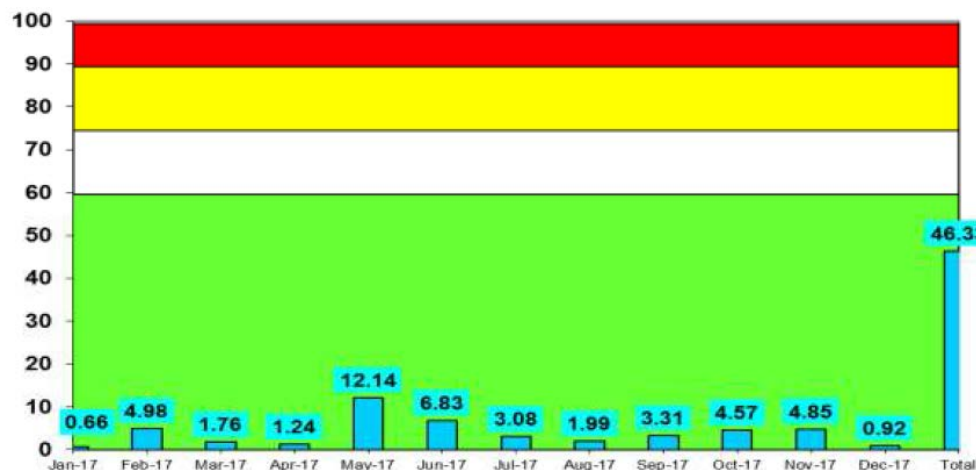
As can be seen below, the volume of radioactive waste produced in 2017 was under the target of excellence set forth.

### *Volumul deseurilor radioactive solide*

Realizat 2017	Tinta 2017 (prag strategic)
46.33 m <sup>3</sup>	56.68 m <sup>3</sup>

## ANNUAL REPORT 2017

Volumul deșeurilor radioactive solide produse în ZR U1 și U2



The production of energy through nuclear processes does not lead to the release of CO<sub>2</sub> 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 CO<sub>2</sub> per year is avoided.

### THEMATIC ASPECTS: SOCIAL AND LABOUR 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 rights and obligations of the

employees are stipulated in the Collective Work Agreement ("CCM") of SNN, in the Individual Work Agreements ("CIM") and in the Internal Rules of the Company. The rights and obligations of employees stipulated in the CCM are formulated in full compliance with human rights, the right to work in accordance with applicable law, employees benefiting from equal treatment, without discrimination, corresponding to the international standards of the nuclear industry, in conjunction with the legislation and motivational packages tailored to the macro- and micro-economic specificity in Romania.

The employees carry on their activity in accordance with the established working schedule, the job description as well as the Rules for Organization and Operation ("ROF"). The main activities, attributions, responsibilities as well as the relationships between the departments of the company are presented in the rules for the organization and operation of the company. The Internal rules establish the application, beginning with 01.02.2013, of certain legal provisions as well as the normative internal provisions of the company regarding work discipline.

The normative act that governs the labor relationships in the company is the Labor Code - Law no. 53/2003, as amended and supplemented, under which, during 2017, between the Company's Board of Directors and its employees, represented by the CNE



#### **ANNUAL REPORT 2017**

union (union which is representative at the unit level unit and is legal entity), a new CCM was negotiated, registered at the Ministry of Labor on 23.11.2016, and with effects in the period 01.12.2016 - 30.11.2018.

The company currently uses a standardized individual work agreement both for the employees hired for a determined period of time and for the employees hired on undetermined term. The standardized individual work agreement respects the provisions of the Order no. 64/2003, regarding the individual work Contract.

The company evaluates its employees on a constant basis in accordance with the internal procedures, annually or periodically, at an interval of 3 - 6 months (in the case of some personnel members who are under observation).

The internal rules of the Company, in force since February 1, 2013 contain all the provision categories provided by the Labor Code. The internal rules 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.

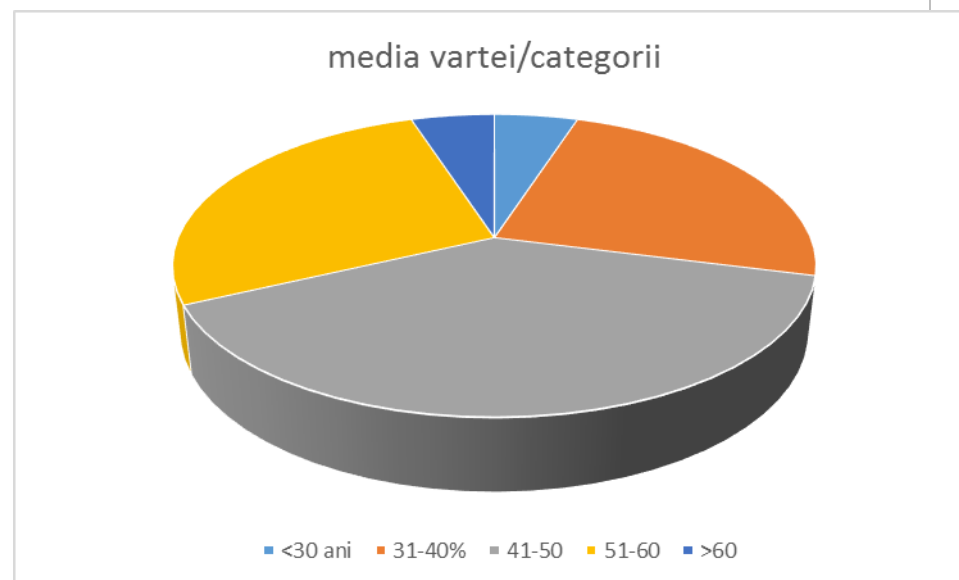
The relationship with the trade unions is permanent and consists in meetings/consultations with them, and the provisions of the SNN CLA are negotiated following permanent consultations of the Commission appointed by the management, as well as by the trade unions.

As far as the human capital management is concerned, the company is deeply interested and invests in the human factor through training and instruction - according to the Labor Code - at least once every 2 years a form of human training is being carried out.

## ANNUAL REPORT 2017

### 9 Centralized Key Performance Indicators (KPIs) within SNN SA Structure pers/age group

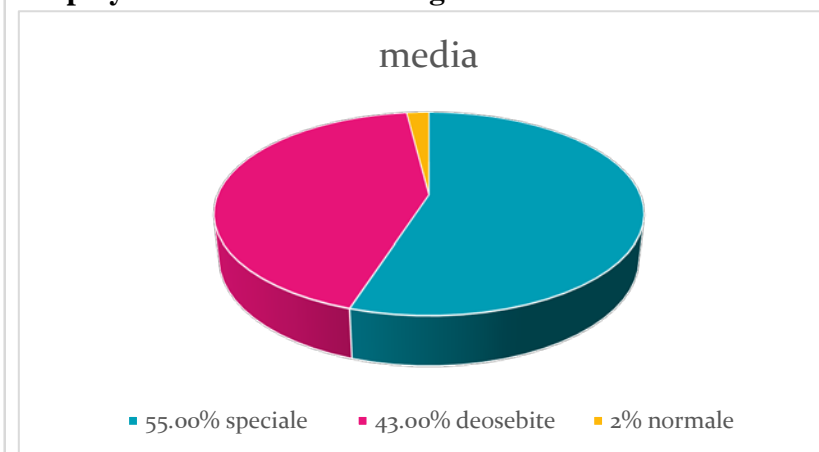
	average age/category
< 30 years	5.00%
31-40%	24.00%
41-50	39.00%
51-60	27.00%
>60	5.00%



Employees entitled to parental leave, per gender  
The average of those who are raising children/genders

NPP	FCN	SNN Headquarters	Average	
0.39%	0.17%	0.25%	0.81%	Women raising children
0.19%	0.00%	0.00%	0.19%	Men raising children

### Employment based on working conditions



Personnel fluctuation rate - 60% on average



## ANNUAL REPORT 2017

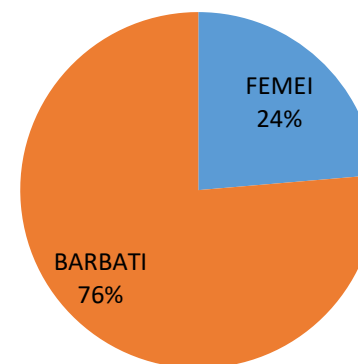
Share of employees working with temporary contracts, per gender - Very low <1%

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 167.77 h/women and 167.62 h/men.

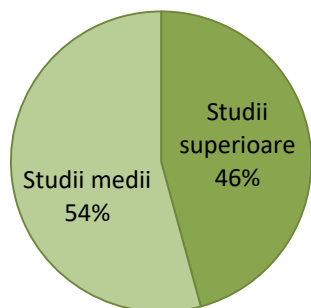
Employee consultation processes - Consultations with the trade unions on topics related to nuclear security (in CSSM)

### Key Performance Indicators (KPIs) related to the Cernavoda NPP Branch

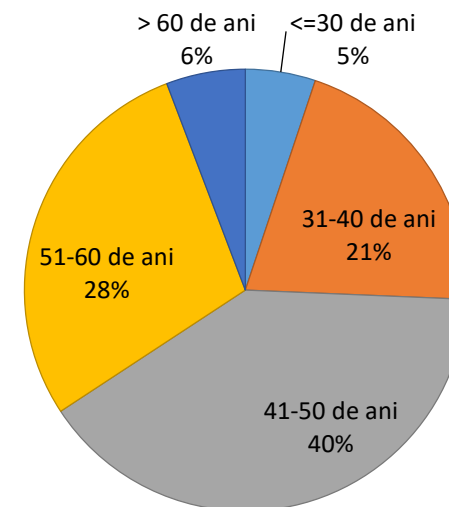
**Cernavoda NPP - Structure of the personnel, per genders, on 31.12.2017**



**Cernavoda NPP - Structure of the personnel, per categories of studies, on 31.12.2017**



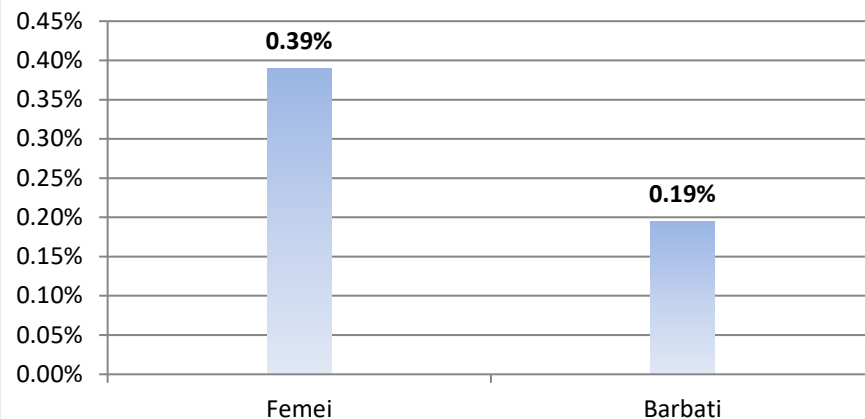
**Cernavoda NPP - Structure of the personnel, per categories of age, on 31.12.2017**



— Employees entitled to parental leave, per gender;

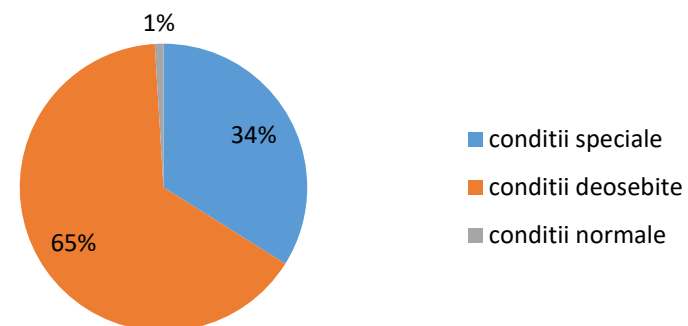
## ANNUAL REPORT 2017

**Cernavoda NPP - Share of the number of personnel members on leave for raising children from the total number of personnel members, on 31.12.2017**



— workers participating in activities with a high risk of accidents or specific diseases;

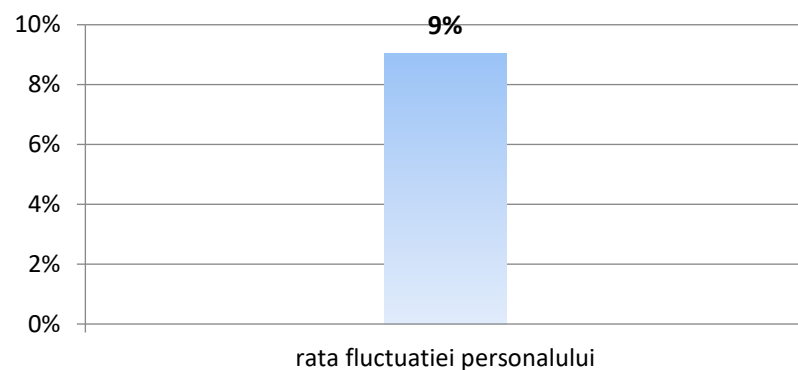
**Cernavoda NPP - Employment based on working conditions, on 31.12.2017**



— Personnel fluctuation rate;

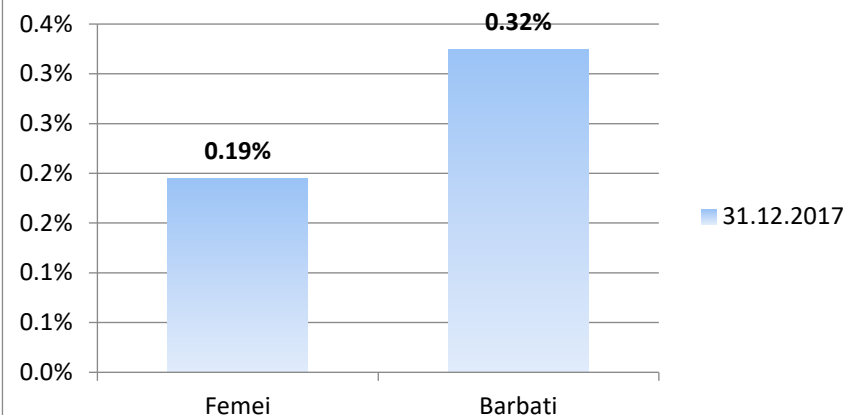
# ANNUAL REPORT 2017

**Cernavoda NPP - personnel fluctuation rate, on 31.12.2017**



— Share of employees working with temporary contracts, per gender;

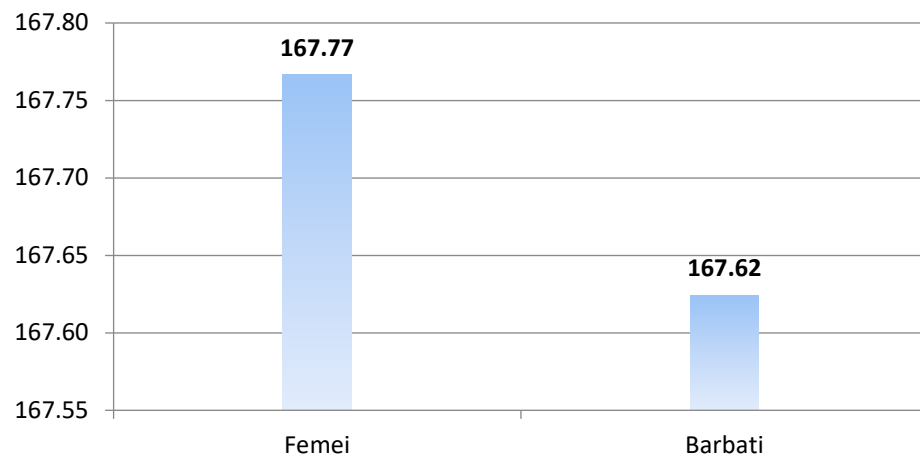
**Cernavoda NPP - Share of the number of personnel numbers with ILA with a definite term, from the total number of personnel members, on 31.12.2017**



— Average number of training hours per year for each employee, per gender;

## ANNUAL REPORT 2017

**Cernavoda NPP - Average number of training hours per year for each employee, per categories of gender, on 31.12.2017**

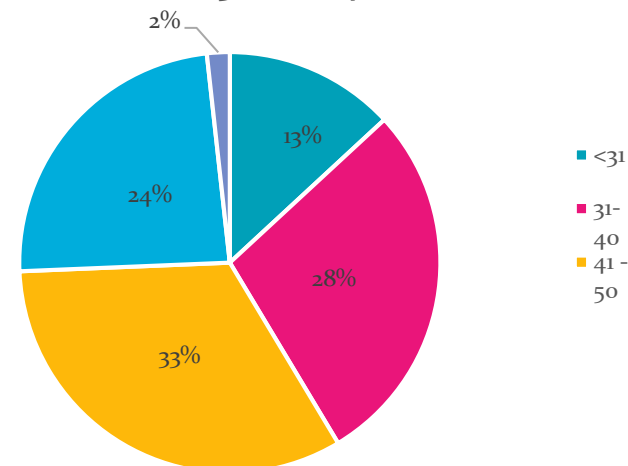


- Employee consultation processes;  
CSSM, Consultation with Trade Unions representing the employees, PS 011 Reporting of Personnel Concerns related to Nuclear Security
- Number of people with disabilities employed.12

## Key Performance Indicators (KPIs) related to the FCN Pitesti Branch

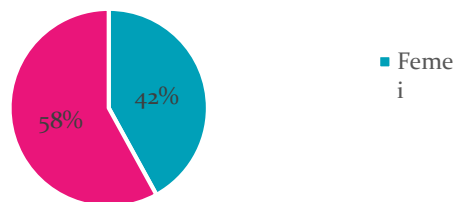
— Gender diversity and other aspects related to diversity;

**FCN Pitesti - Structure of the personnel, per categories of age, on 31.12.2017**

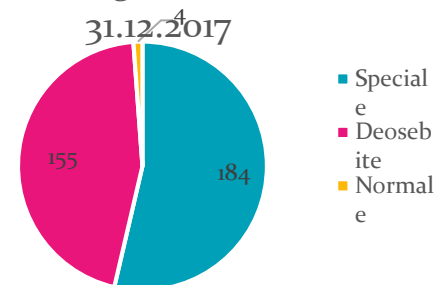


## ANNUAL REPORT 2017

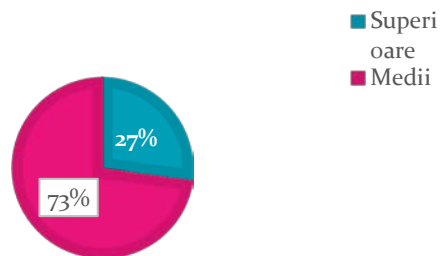
FCN Pitesti - Structure of the personnel, per genders, on 31.12.2017



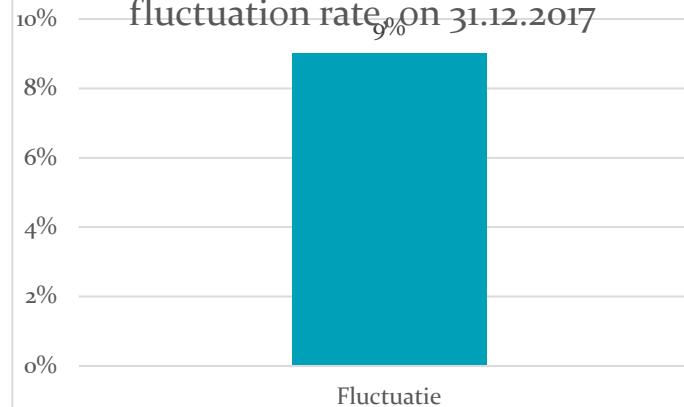
FCN Pitesti - Employment based on working conditions, on 31.12.2017



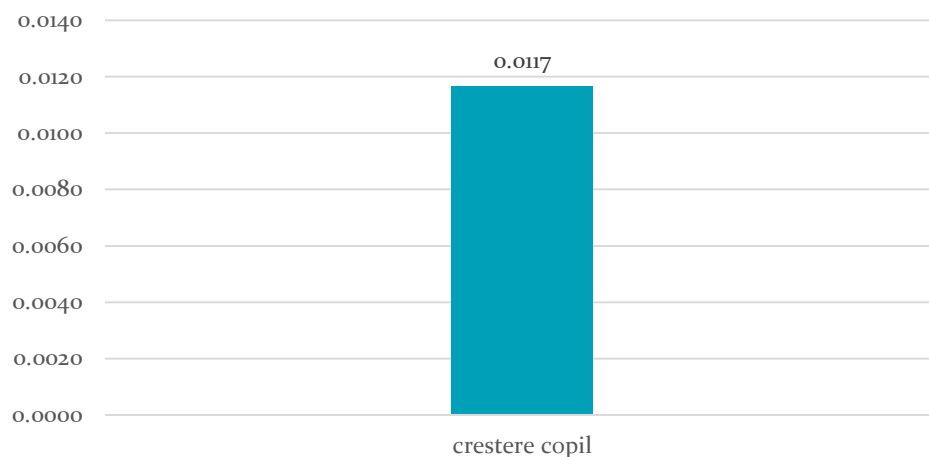
FCN PITESTI - STRUCTURE OF THE PERSONNEL, PER CATEGORIES OF STUDIES, ON 31.12.2017



FCN Pitesti - Personnel fluctuation rate, on 31.12.2017



FCN Pitesti - Share of the number of personnel members on leave for raising children from the total number of personnel members, on 31.12.2017



- Number of work accidents, types of injuries or occupational diseases
- In 2017, FCN recorded a work accident during the journey from home to workplace of an employee. No occupational disease was recorded
- personnel fluctuation rate;

In 2017, 172 people left FCN and 138 people entered the organization

2017 represented a great challenge for FCN and will remain in the history of the plant as a test that was successfully passed by the company's management. The challenge came in the context of legislative changes, with the issue of Law 155/2016, amending and supplementing Law 263/2010, meaning that the full contribution period is changed in the sense of it being reduced from 22 years and six months to 15 years and from 25 years and six months to 17 years. The effect of this legislative change was reflected in our organization in the large number of people who have requested the registration for retirement by capitalizing on the contribution period in group I and special conditions. With a gradual approach of pensioners, between 10-20 pensioners per month, and the takeover of additional tasks by some experienced employees, during the period between the time of the position remaining vacant and the moment of its actual filling, a reduction in the pensioner impact was achieved. The integration of new employees into the organization aimed as a primary goal the understanding of the general methods and practices required for the proper performance of the activity, the role, the responsibilities and the duties of the position held, the internal regulations that the employee needs to observe. Special focus was placed on the organizational culture and the nuclear security

**Share of employees working with temporary contracts, per gender;**

Within FCN, the share of employees working with temporary labor contracts is low. Currently there are only two definite period contracts.

- number of people with disabilities employed.  
FCN does not have any people with disabilities employed.

## 10.HUMAN RIGHTS OBSERVANCE

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 based on 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.

## 11.FIGHTING CORRUPTION AND BRIBERY

S.N. Nuclearelectrica S.A. launched in January 2017 the actions required for compliance with the provisions of HG 583/2016 regarding the approval of the National Anticorruption Strategy for the period 2016-2020, going through several stages in this regard:

- a Project Team was established;
- the Declaration on the adherence to the fundamental values, principles, objectives and mechanism of monitoring of the National Anticorruption Strategy 2016-2020 was adopted (and published on the SNN website);
- the Integrity Plan was developed and approved;
- an identification of the risks and vulnerabilities specific to the institution, an analysis of the risks related to corruption and a plan for the implementation of specific measures based on the risk analysis was carried out.





#### **ANNUAL REPORT 2017**

- an Anti-Fraud Office was established and personnel with experience in identifying and investigating fraud and corruption situations was hired.

For 2018, actions aimed at managing the risks of corruption were established, as follows:

- Developing and applying the ethics/conduct code of the public enterprise, in order to avoid situations of incompatibility and conflict of interests, but also in order to handle them
- Establishing mechanisms for the protection of whistleblowers
- Putting into operation internal communication systems in order to facilitate the reporting of irregularities and possible corruption offences
- Applying preventive measures for sensitive functions
- Consolidating the status and role of the ethics adviser
- Mechanisms for handling integrity incidents



## ANNUAL REPORT 2017

### 12. PRESENTATION OF THE GROUP

SNN owns only one branch, namely Energonuclear S.A. ('EN'), with a percentage of participation in share capital of 100% on December 31, 2017. It enters within the consolidation perimeter.

#### *History and presentation*

The establishment of Energonuclear S.A., company whose mission is the development of the execution project for the Units 3 and 4 from Cernavodă Nuclear Power Plant, was achieved by promoting a shareholding structure, where SNN holds a participation share of 51% of the share capital (based on the Government Resolution no. 643/2007, as it was amended by the Government Resolution no. 691/2008). According to the Investment Agreement, based on which the EN was founded, signed on December 25th, 2008 and approved by the Government Resolution no. 1565/2008, the shareholding initial structure was: 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 (on December 30th, 2010) and RWE, GDF Suez and Iberdrola (on 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 on January 17, 2014 a share of 100% in the share capital of EN.

The share capital of the company EN on December 31st 2017 is 146,152,998.73 lei, representing the equivalent of 35,000,000 Euros. The share capital is divided into 37.105.029 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, District 2, offices no. 307, 315, 315A, 315B, 315C, 316, 317. Order number in the Trade Register is J40/3999/2009, and the Unique Registration Code is 25344972.

#### *Articles of incorporation*

The Articles of Incorporation of EN was amended, and the amendments were approved by Resolutions of the Extraordinary Assembly of Shareholders, within the program for limiting the activities of Energonuclear S.A. initiated by HAGEA 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 Assembly of Shareholders no. 2 of January 18, 2017,



## ANNUAL REPORT 2017

which decided to relocate the registered office of EnergoNuclear to the aforementioned address.

### *Documents of appointment/revocation of administrators*

Energonuclear is managed in a unitary system. The Board of Directors consists of 3 administrators appointed by the General Meeting of Shareholders for a period of 4 years. 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.

The Board of Directors of EN had the following members at the end of 2017:

- Elena Popescu: Chairman;
- Ion Sarbulescu: Member;
- Liviu - George Fotache: Member.

### *The management of Energonuclear*

During the year 2017, the executive management of EN was ensured by the following managers:

3. Minodor Teodor Chirica: General Manager – Mandate contract valid until 14.11.2017, extended by 12 months by HCA no. 6/09.10.2017 and suspended for 4 months starting with 16.10.2017 according to HCA no. 8/13.10.2017;
4. Cristian Felician Talmazan: Technical Service Manager (Individual employment contract concluded for a definite term starting with October 16, 2017) by temporarily taking over the attributions of General Manager according to HCA no. 8/13.10.2017.

### *Description of activity*

During the year 2017, the company has developed activities that targeted actions necessary for the execution and continuation of the project Units 3 and 4 of Cernavodă Nuclear Power Plant (“The Project”), out of which the most important were:

❖ Insurance of the assistance, mostly technical, 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. Also, assistance was offered and updated information was made available regarding EN (technical, financial, accounting, commercial, juridical) which were requested during the process advancement “Due Diligence”.

## ANNUAL REPORT 2017

❖ Monitoring the state of the location and structures of Units 3 and 4 Cernavoda (site visits of own personnel for observation and ensuring the interface with the experts of the selected investor), both from own initiative, and following the inspection performed by CNCAN on Units 3 and 4 at CNE Cernavoda in 25-26.10.2016, the CNCAN visit of 17-18.08.2017 and the inspection performed by CNCAN on Units 3 and 4 at CNE Cernavoda in 24÷27.10.2017; issuing the resulted action plans and their monitoring.

❖ Identifying the existing technical documentation for Units 3 and 4 CNE Cernavoda, preparation of the annexes representing the documentation related to Cernavoda NPP Units 3 and 4 which represented the base for the construction – fitting phase, together with the existing quality documentation as per the Custody Transfer Agreement concluded on June 5th, 2009 between SNN/Cernavoda NPP and EN with the purpose of returning them to SNN/Cernavoda NPP.

❖ Transferring the technical documentation owned by Energonuclear related to Units 3 and 4 CNE Cernavoda and resulted from the advancement of the agreement with the third parties, together with technical documentation of Energonuclear related to units 3 and 4 from CNE Cernavodă, drafted by their own personnel, in order to keep it in custody at SNN/CNE Cernavodă. The operation was registered in the Informative

Report “Transfer of the archive of EnergoNuclear to SNN-CNE Cernavoda”.

❖ The existing technical documentation for Units 3 and 4 CNE Cernavoda was identified, and the Informative Report “Performance, assembly and as-built drawings.” Preparing the necessary documentation for the new mixed company” was drafted.

❖ Reassessing the Design Change Notices list by comparing the requirements from LBD.

❖ Drafting a report, at the request of ANDR, regarding the estimated inventory of the nuclear waste in the Project (in conjunction with SNN).

❖ Monitoring the evolution of the works on the Danube, in the Calarasi - Braila sector, periodical notifications of the stakeholders, including the participation in the 3rd seminar organized by AFDJ with international advisers and the representatives of the European Commission, of May 17, 2017, an action that included the analysis of the studies performed by AFDJ and the assessment of the impact on ensuring the cooling water for the CNE Cernavoda location in extreme weather conditions.

❖ Ensuring support upon the request of DGPE/Ministry of Energy on several matters of interest for the ministry, out of which: (1) participation in the “Nuclear Like-Minded Dinner” organized by the Permanent Agency of Romania to EU, (2)



## ANNUAL REPORT 2017

providing the necessary information within the process of Romania's joining the Nuclear Energy Agency (NEA) within OECD, and preparing the NEA visit to Romania, (3) identifying the risks of not building Units 3 and 4 Cernavoda, (4) comments on the project of the Energy Efficiency Directive and carbon taxation, (5) comments on the tender book regarding the support mechanisms for non-carbon technologies, (6) comments to the SNN note on extending the lifecycle at Unit 1 CNE Cernavoda, (7) drafting the CNE chart for Cernavoda Units 3 and 4, (8) preparing the meetings with the delegation of SNC Lavalin etc.

❖ Preparing, negotiating and signing the SNN-EN shareholder loan contract convertible in shares, approved by CA SNN on 10.10.2017 and AGEA EN on 18.10.2017, the date of its effectiveness. The scope of the contract is crediting EN by SNN, for the exclusive financing of the expenses EN will incur in relation to (1) the works for maintaining and preserving the site of U3-U4 CNE Cernavoda, (2) personnel expenses of EN that will be absolutely necessary in relation to the signing and implementation of the maintenance and preservation contracts for site U3-U4, (3) other EN expenses for implementing and monitoring the performance of maintenance and preservation works at the U3-U4 site, including general and administrative expenses.

❖ Participation in business meetings for developing the cooperation with the nuclear industry from France, Canada and Great Britain.

❖ Participation in national and international events: SIEN'2017 (AREN), Nuclear 2017 (RATEN), IFNEC meeting on radioactive waste (ANDR), "Energy Strategy" debate (ROEC), "Energy Trilema" debate (CNR-CME) etc.

❖ Managing current administrative, financial-accounting and legal problems, with EN own personnel and services contracted by EN.

EN resources mainly come from:

- Draws from the shareholder loan contract concluded by SNN with EnergoNuclear;
- Cash contributions made by the shareholders;

and to a very small degree from interests.

On December 31, 2017 EN had 7 employees with work hours of up to 40 hours a week/week, and an employee with her individual employment contract suspended for child raising.

## Factor matrix

