## Ministry of Economy, Energy and Business Environment Economic operator: SN Nuclearelectrica SA Registered office / address: 65 Polona St., district 1, Bucharest Sole Registration Number: RO10874881

## Investment program, facilities and financing sources

				previous year 2019		thousand RON Value			
		INDICATORS Date of completion the investment		Approved	Preliminary	Current year 2020	Year 2021	Year 2022	
0	1	2	3	4	5	6	7	8	
Ι		INVESTMENT FINANCING SOURCES, of which:		553,410	547,578	670,575	712,390	649,309	
	1	Own sources, out of which:		553,410	547,578	564,910	577,903	590,617	
		a) amortization		553,410	547,578	564,910	577,903	590,617	
		b) profit		-	-	-	-	-	
	2	Budget subsidies		-	-	0	0	0	
	3	Bank credits, of which:		-	-	-	-		
		a) - internal		-	-	0	0		
		b) external		-	-	0	0	0	
	4	Other sources, of which:		-	-	105,665	134,487	58,693	
		- Stock exchange listing		-	-	0	0	C	
		- Carried forward amortization		-	-	105,665	134,487	58,693	
		- SNN own sources		-	-	0	0	C	
II		INVESTMENT EXPENSES, of which:		460,979	447,745	536,088	653,698	727,258	
	Α	Ongoing investments, of which:		94,462	87,858	89,636	230,081	404,000	
		a) for goods privately owned by the economic operator:		94,462	87,858	89,636	230,081	404,000	
	1	SNN Head Office:		3,709	2,183	49,755	60,912	19,742	
	1.1	Cernavoda NPP (U3-U5), of which	2020	44	-	45	-		
		- Initial contribution to the share capital of JVCo	2020	44	-	45	-		
		- Assessment of compliance with the requirements of the Nuclear	2019	-	1,183	-	-		
		Safety Directive by Project U3 - U4 - CANDU Energy							
	1.2	Extension of the life cycle of Unit 1 by re-tubing the reactor and	2022	3,665	1,000	49,710	60,912	19,742	
		refurbishing the main systems (studies)							
	2	Cernavoda NPP Branch (U1+U2):		90,633	85,647	39,809	169,051	384,140	
	2.1	Intermediate Dry Storage Spent Fuel Facility (DICA)	2047	12,925	12,925	10,053	19,666	13,666	
	2.1.1	Construction works for modules M10 and M11		-	-	3,065	-		
	2.1.2	Construction works for modules M12-17		-	-	5,500	-	-	
	2.1.3	DICA - physical protection for M9, M10, M11		-	-	1,146	-		
	2.1.4	DICA - physical protection for M9, M10, M11		-	-	323	-		
	2.1.5	Charges		-	-	19	-		
	2.2	Modernization and expansion of physical security system	2024	19,736	10,995	8,511	7,850	14,675	
	2.2.1	Works with priority 2, stage 1 of the completion of the SPF of Cernavoda NPP identified in the document "Study on maintaining the operation of critical installations within the vital structures"		-	0	8,411	0	C	

			previous y	previous year 2019		Value		
	INDICATORS	Date of completion of the investment	Approved	Preliminary	Current year 2020	Year 2021	Year 2022	
2.2.2	Design, supply, installation and commissioning works of the uninterruptible power supply (UPS) system for the power supply of the Physical Protection systems related to the Physical Protection Secondary Control Room		-	0	100	0	0	
2.3	D2O Tritium removal installation	2025	400	1	3,000	72,200	295,500	
2.4	Emergency control alternative center U1+U2	2021	827	768		9,976	0	
2.5	Increasing the safety in the operation of the power discharge system of Cernavoda NPP, by refurbishing the power discharge transformers and providing a spare trafo for two units	2023	10,000	10,118	2,194	8,682	4,822	
2.5.1	Refurbishing services for the power discharge transformers in units 1 and 2 of Cernavoda NPP, CS4		-	0	1,155	0	0	
2.5.2	Removal from site and replacement of refurbished trafo, CS5		-	0	1,039	0	0	
2.6	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 (U5 fitting)	2022	30,000	17,181	0	30,000	40,000	
2.7	Improving of Cernavoda NPP 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 (implementation of MPA EC 1094, MPA EC 1192, MPA EC 3037, MPA EC 2892 etc.)	2023	1,270	-	1,486	11,327	15,438	
2.7.1	Implementation of MPA EC 1192 - Changing the configuration of the 0.4 and 6KV distribution system of 1/2-52900-DG1/2 for the connection of mobile DIESEL groups in case of a SBO event		-	0	127	0	0	
2.7.2	Implementation of MPA EC 2892 - Replacement of pressure transducers 1.2 63312-PT13 at PT16 and 1-63332-PT35N at PT38N above the flooding level in the event of a severe accident		-	0	1,359	0	0	
2.8	Equipment for extracting horizontal and vertical flow detectors of HESIR type (*)	2019	3,181	2,812	0	0	0	
2.9	Fitting of the land owned by the NPP and relocating the necessary buildings for the proper operation of the Seiru warehouses on the territory of Cernavoda NPP	2021	-	2,174	2,871	2,000	0	
2.9.1	Fitting of the land owned by the NPP and relocating the necessary buildings for the proper operation of the Seiru warehouses on the territory of Cernavoda NPP				4,385			
2.9.2	Additional works to Works Contract no. 1513/2014 "construction works for warehouse halls and auxiliary buildings in the Cernavoda NPP warehouse"				450			
2.9.3	Charges for the site				36			

		Date of completion of	previous year 2019		Value		
	INDICATORS		Approved	Preliminary	Current year 2020	Year 2021	Year 2022
2.10	Software and hardware refurbishing of the full scope simulator	2021	-	-	4,728	5,916	(
2.11	Replacement of corroded pipe section in the area of A. Saligny Street.	2020	-	75	2,233	0	(
2.12	Periodic Nuclear Safety Review (RPSN) for U1/U2	2022	7,650	16,162	4,606	1,435	40
2.13	JP COG 4597	2019	-	7,359	0	0	(
2.14	Replacing the control section of the excitation system 2-41280-PL 1615 from Unit 2	2019	4,644	5,079	0	0	(
3	FCN Pitesti Branch:		120	28	72	118	118
3.1	Integrated computer system for managing the production of nuclear fuel (SIMP)	2022	120	28	72	118	118
	b) for the goods from the public domain of the state or of the administrative-territorial unit:		-	-	0	0	(
	- (name of objective)		-	-	0	0	(
	- (name of objective)		-	-	0	0	(
	c) for the goods from the private domain of the state or of the administrative-territorial unit:		-	-	0	0	(
	- (name of objective)		-	-	0	0	(
	- (name of objective)		_	-	0	0	
	d) for goods taken in concession, leased or under administration,		-	_	0	0	
	excluding those from the public or private domain of the state or of				Ũ	Ũ	
	the administrative-territorial unit:						
	- (name of objective)		-	-	0	0	(
	- (name of objective)		_	-	0	0	
В	New investments, of which:		419	405	16,152	112,857	89,04
	a) for goods privately owned by the economic operator:		419	405		112,857	89,04
1	Cernavoda NPP Branch:		324	1	6,818	57,262	47,98
1.1	Modernization works Water treatment Station (STA) stage II phase	2022	-	-	10	3,277	713
1.2	Rehabilitation and fitting of roads, platforms and underground pipelines / decommissioning of the internal railway, of the black oil unloading ramp and of the ABA boiler / Refitting of the land and building holes for unloading CLU from road tankers	2022	-	-	-	3,000	4,00
1.3	Software for the integrated management of the power station - Asset suite 6.0.4 upgrade to version 9.X.	2022	-	-	-	4,988	6,413
1.4	Purchase of hardware / software platform (minimal architecture)	2021	-	-	-	6,413	
1.5	EDMS replacement and integration with AS 9.X	2022	-	-	-	3,705	3,705
1.6	Improvements of the underground water system pumps 1-1531-P01, P02, P03, P05, P06, P07	2022	-	-	-	860	449
1.7	Installation works for air dehumidification equipment, with adsorbent wheel, for the ventilation system in the Reactor U1 Building	2022	-	-	438	500	2,898

		Date of completion of	previous	year 2019	Value		
	INDICATORS		Approved	Preliminary	Current year 2020	Year 2021	Year 2022
1.8	Refurbishing the fire detection systems installed in NSP-U1 and Pavilion 2	2022	30		- 205	1,513	1,655
1.9	Replacing the ventilation and air conditioning system related to Pavilion 2	2021	65		- 468	4,167	-
1.10	Rehabilitation and modernization of the fire water pumping station - SPAI - SPAI design	2022	-		-	1,126	5,868
1.11	GEM noble gas spectrometer for ensuring the monitoring of the gas emissions at U2, similar to the one installed at unit U1	2021	-			1,425	-
1.12	Replacing the ventilation and air conditioning system related to Pavilion 6	2021	43		- 1,200	2,765	-
1.13	Improving the reliability of the DIESEL generating groups SDG U1	2022	-		- 0	475	2,375
1.14	Increasing the reliability of the EVA 8000 storage system that ensures the centralized storage of the production data of the computer system of Cernavoda NPP by replacing it	2021	-		- 4,000	10,889	-
1.15	Increasing the reliability of the class II 220Vca distribution system, at U2 by replacing the voltage stabilizers 2-5542-VR1A/1B/1C	2021	-		-	1,843	-
1.16	Refurbishing systems GFP U1 and GFP U2. Replacing the computers and spectrometers GFP U1 and U2 because of their obsolescence and the necessity for improving their reliability	2021	93		- 95	1,211	-
1.17	Installing an air filtering unit on the fresh air suction line of the air conditioning units 1-7342-ACU3/ACU4 related to the Main Control Room of Unit 1	2022	-			714	8,455
1.18	Rehabilitation of the cellular component warehouse - Quadricell of DIDSR	2021	-			1,295	-
1.19	Increasing the reliability of SDS#1 by the replacement of ROPT SDS#1 U1 amplifiers and EMI Tusonix filters on the NIM-BIN drawers, with new EMI amplifiers and filters, more reliable, similar to project ROP SDS#1 U2	2021	-			2,935	-
1.20	Ensuring the supply of the important consumers at U0 from own sources in order to increase the operating safety in case of losing the supply from SEN	2022	-			95	2,769
1.21	Increasing the production capacity of the primary thermal agent, according to the requests of the local community from Cernavoda, by building at Unit 2 a thermal unit similar to PTU1	2023	-		-	0	1,900
1.22	Installing an independent system for monitoring the structures for the manual triggering of the power station in case of a serious earthquake	2021	-		- 10	1,871	-

			previous y	year 2019	Value		
	INDICATORS	Date of completion of the investment	Approved	Preliminary	ry Current year 2020 Year 20		Year 2022
1.23	Improving the performance of the DCC display system by replacing the Ramtek FS2400 graphics system	2022	93	-	10	133	4,893
1.24	Replacing the axle/pump vibration radial displacement measurement panels NSP U1	2022	-	-	-	0	642
1.25	Refurbishing the fire detection and control and the Deluge valve monitoring sections related to the transformers 0-5135-TC01/TC02, 0-5134-T1/T2	2021	-	-	-	537	
1.26	Making a lightning arrester at the light liquid fuel tanks related to CTP	2020	-	1	349	-	
1.27	Fitting the drainable basin for the collection of wastewater related to Pavilion # 10 of Cernavoda NPP	2021	-	-	34	276	
1.28	Purchasing lands / buildings and works for the rehabilitation / modernization / extension	2022	-	-	-	250	250
1.29	Expenses for drafting pre-feasibility studies, feasibility studies and other studies related to the investment units (JP)	2022	-	-	-	1,000	1,000
2	FCN Pitesti Branch:		95	304	_	-	
2.1	Feasibility study regarding the possibility of increasing the storage capacity for raw materials, direct materials, for finished products and annexes	2019	95	-	-	-	
2.2	Design and execution of natural gas supply system	2019	-	304	-	-	-
3	SNN Head Office:		-	100	9,334	55,595	41,064
3.1	SNN integrated communications network - equipment, installation, implementation	2021	-	100	1,800	1,027	
3.2	E-mail and user integration, other Microsoft licenses	2022	-	-	1,800	1,400	3,865
3.3	EAM solution upgrade	2023	-	-	-	13,550	13,768
3.4	Business Processes and Document Management solution	2023	-	-	1,000	1,000	355
3.5	IT Service Management	2021	-	-	1,000	1,000	
3.6	Centralized Storage	2023	-	-	-	8,778	5,173
3.7	BACK-UP & amp; SNN centralized archiving	2021	-	-	942	3,297	
3.8	IT Asset & amp; User Management	2021	-	-	942	2,826	
3.9	CYBERSECURITY – As per NIS (L362/2018), implementation of integrated SOC, ISO27001 certification	2023	-	-	100	6,965	4,710
3.10	Implementation of excellence, IT & amp; OT Training and Cybersecurity center	2023	-	-	100	3,255	3,710
3.11	ERP with various modules (FIN, HR, CRM, TRANSACTIONS, RISK ETC.)	2023	-	-	500	4,211	3,297
3.12	Bussiness Inteligence & amp; Dashboards	2023	-	-	10	2,355	1,884
	Hardware refresh	2023	-	-	1,000	1,942	1,413
3.14	Digital Processes Security	2023	-	-	100	3,139	2,884
3.15	Project Management	2023	-	-	-	-	
3.16	Access control and intercom system	2020	-	-	19	400	
3.17	Video, anti-burglary, surveillance system, back-up alarm system	2020	-	-	21	450	

			previous y	year 2019	9 Value			
	INDICATORS	Date of completion of the investment	Approved	Preliminary	Current year 2020	Year 2021	Year 2022	
	b) for the goods from the public domain of the state or of the		-	-	0	0	(	
	administrative-territorial unit:							
	- (name of objective)		-	-	0	0	(	
	- (name of objective)		-	-	0	0	(	
	c) for the goods from the private domain of the state or of the		-	-	0	0	(	
	administrative-territorial unit:							
	- (name of objective)		-	-	0	0	(	
	- (name of objective)		-	-	0	0	(	
	d) for goods taken in concession, leased or under administration,		-	-	0	0	(	
	excluding those from the public or private domain of the state or of							
	the administrative-territorial unit:							
	- (name of objective)		-	-	0	0	(	
	- (name of objective)		-	-	0	0	(	
С	Investments made at the existing tangible assets (upgrades), of which:		85,642	79,705	132,278	57,406	26,554	
	a) for goods privately owned by the economic operator:		85,642	79,705	132,278	57,406	26,554	
1	Cernavoda NPP Branch:		79,163	77,171	126,657	55,706	26,554	
1.1	Supply of lifting equipment for the replacement of power cranes in	2021	65	-	444	162	,	
	R/B, R601 U1/U2 and for servicing the valves of the 41190 system							
	in T/B U2							
1.2	Refurbishing works for the weather tower at Unit 1	2021	-	-	56	300		
1.3	Replacing the mam machine interface related to 2-52300-DG1/DG2	2023	-	-	0	0	95	
1.4	Capital repairs on the air compressors at U1	2019	1,350	1,388	-	-		
1.5	Capital repairs on the air compressors 2-7510 CP3/CP4	2020	900	-	900			
1.6	MPA-EC#2989/Replacing vibration transducers at pumps 1-4323-	2022	679	-	679	1,000	1,00	
	P01, P02 and P03 (full services: ensuring the parts, assembly and							
	startup testing)							
1.7	MAN services for preventive maintenance and implementation of	2021	-	-	5,640	5,640		
	changes							
1.8	Running the Feeder Program: - Replacement of G13A feeder	2020	-	-	11,371	-		
1.9	Services associated with the implementation of immobilizing spare	2022	46,160	48,353	53,045	45,000	21,00	
	parts in OP U1/U2							
1.10	CA/LA services PLiM cables program	2022	-	-	3,604	3,604	3,604	
1.11	Running the program GA, CR # 30974 (dome inspection, tubular plate washing)	2020	-	-	13,616	-		
1.12	Running the Program HX OP U1/U2 - (for 2020: ECT U1OP20	2020	1,865	1,908	2,631	_		
	inspections and plugging 4 tubes on request)		-,500	-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	_,			
1.13	Implementation of the fuel channel program (inspection of fuel	2020	21,362	19,962	23,088	_		
	channels and sampling material in OP U1 / U2)		,00_	-,,, 0=	,000			
1.14	Running the Program Feeders CR 28786 (Inspection of Feeders in	2020	5,597	4,178	6,508	-		
	spare parts for feeder inspection equipment in U1 / U2 OP)		2,077	.,170	0,000			
1.15	Gabion lifting construction works for hydrotechnical circuit	2020	-	-	160	-		
					-00			

		Date of completion of	previous y	year 2019		Value	Value	
	INDICATORS		Approved	Preliminary	y Current year 2020 Year 20		Year 2022	
1.16	Repair works for 150 seats Hostel - Cernavoda	2021	-	-	985	-		
1.17	Repair works for the pool	2021	-	-	440	-		
1.18	Thermal insulation works for the facades of block A1, entrances 1 -	2021	-	-	600	-		
1.19	Capital repairs on the pumps type NMV 1000 RA / NMV 1000 BSI 71310 and 71340	2020	-	-	1,100	-		
1.20	Maintenance and repairs for NMV2000 BSI 71210 electric pumps	2020	-	-	1,790	-		
1.21	Implementation of the buried pipeline program (inspections BP U1 and U2)	2019	1,185	1,194	-	-		
1.22	Tennis court remedy and development work	2019	-	189	-	-		
2	FCN Pitesti Branch:		6,479	2,533	5,622	1,700		
2.1	Modernization of the fuel bundle manufacture line in order to optimize the flow of manufacturing and improving the quality of the finished product	2020	590	5	551	-		
2.1.1	Design and execution of "Automatic system for isokinetic sampling of powder and gas emissions from FCN dispersion baskets".	2020	5	5	511	-		
2.1.2	Inspection 4 of SF 1516 "Modernization of the fuel bundle manufacture line in order to optimize the flow of manufacturing and improving the quality of the finished product" (redoing the General	2020	-	-	40	-		
2.2	Modernization of the communication infrastructure, fitting the data center according to the TIA942-1 standard, and implementing measures for mitigating the information security risk	2020	2,323	2,076	430	-		
2.3	Modernization of offices, work spaces and hatches, cafeterias - design and technical assistance, implementation and fittings	2020	503	306	303	-		
2.4	Modernization of the ventilation installation of the physical- chemical laboratories	2020	765	49	960	-		
2.5	Design and implementation of the LED indoor lighting system for the general commodity warehouse	2019	16	16	-	-		
2.6	Modernization of the training room and the SPPI office	2019	135	81	-	-		
2.7	Capital repairs on the rotational press R53	2020	1,340	-	1,354	-		
2.8	Capital repairs of Rolcompactor I	2020	371	-	371	-		
2.9	Modernization of the chamfering and burring machine	2020	-	-	277	-		
2.10	Modernization of the Feintool GKP F-40 press	2020	-	-	248	-		
2.11	Anti-fire system at the ventilation system of hall IV (design and implementation)	2020	30	-	174	-		
2.11.1	Design	2020	-	-	40	0		
2.11.2		2020	-	-	134	0		
2.12	Rebuilding the floors of Hall IV (including the annexes) and Hall V	2020	125	-	142	-		
2.13	Renovation of SMEU workshops	2020	80	-	120	-		
2.14	Modernization and rehabilitation of the FC Warehouse and Zy-4	2020	122	-	176	-	-	
2.15	Hydro-insulation of the roof of the FC and Zy-4 warehouses	2020	35	-	145	-		
2.16	Rebuilding the epoxy floors of the FC and Zy-4 warehouses	2020	36	-	72	-		

INDICATORS			previous y	previous year 2019 Value			
		Date of completion of the investment	Approved	Preliminary	Current year 2020	Year 2021	Year 2022
2.17	Modernization of press Feintool GKP F-160	2020	-	-	300	-	-
2.18	Modernization of grinding machines without MRFC-50 centers	2021	-	-	-	1,700	-
2.19	Building the concrete platform # 10 cm, 45 sq m	2020	8	-	-	-	
3	SNN Executive		-	-	-	-	-
3.1	Rehabilitation of thermal facade	2020	-	-	0	-	-
	b) for the goods from the public domain of the state or of the administrative-territorial unit:		-	-	0	0	0
	- (name of objective)		-	-	0	0	0
	- (name of objective)		-	-	0	0	0
	c) for the goods from the private domain of the state or of the administrative-territorial unit:		-	-	0	0	0
	- (name of objective)		-	-	0	0	0
	- (name of objective)		-	-	0	0	0
	d) for goods taken in concession, leased or under administration, excluding those from the public or private domain of the state or of the administrative-territorial unit:		-	-	0	0	0
	- (name of objective)		-	-	0	0	0
	- (name of objective)		-	-	0	0	0
D	Facilities (other purchases of tangible assets)		70,999	63,402	71,478	26,810	36,965
	Cernavoda NPP Branch		61,923	57,279	67,524	25,000	25,000
	FCN Pitesti Branch		7,504	5,579	2,564	1,810	11,965
	SNN Headquarters		1,572	544	1,390		
E	Reimbursements of instalments related to investment credits, of which:		209,457	216,375	226,544	226,544	170,692
	a) - internal		-	-	0	0	0
	b) - external		209,457	216,375	226,544	226,544	170,692

Chief Executive Officer Cosmin Ghita Deputy Chief Executive Officer Dan Laurentiu Tudor Chief Financial Officer Adrian Gabriel Dumitriu