

14743/01.04.2019

Asset Management Unit Investment Division

NOTE

with respet to Shareholders' General Ordinary Assembly's establishment of the 2019 Investment Plan of CNTEE Transelectrica SA an of investment expenses for 2020 and 2021

- 1. The 2019 Investment Plan of CNTEE Transelectrica SA and the estimated investments expenses for 2020 and 2021 (PAI 2019) was elaborated by the Investment Division using as basic items the following:
- The investment priorities established in the Development Plan for RET in 2018 2027;
- The execution schedules of investment projects in progress;
- The proposals received from project managers of the Investment Divisions, from subsidiaries and entities of the executive part of CNTEE Transelectrica SA;
- The main risks that can impact the PAI 2019;

PAI 2019 was reviewed by the Supervisory Board that issued Decision 8/2019 in this respect.

The structure of 2019 investment expenses and of those estimated for 2020, 2021

Thousand Lei

No.	Categories of epenses	2019	2020	2021
	Total general (A+B)	284,808	660,146	535,252
Α	Expenses specific to the	283,107	653,930	535,252
	Company			
1	Investments in progress	206,673	321,027	217,397
11	New investments	24,341	276,358	312,687
	Other investment expenses	52,093	56,545	4,869
В	Investment expenses financed from connection tariffs	1,701	6,215	0



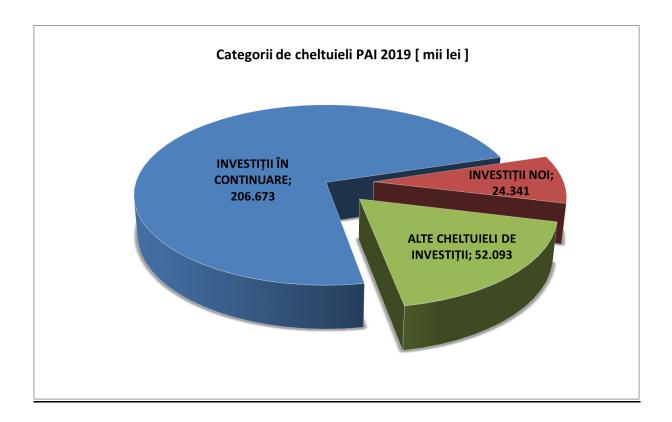




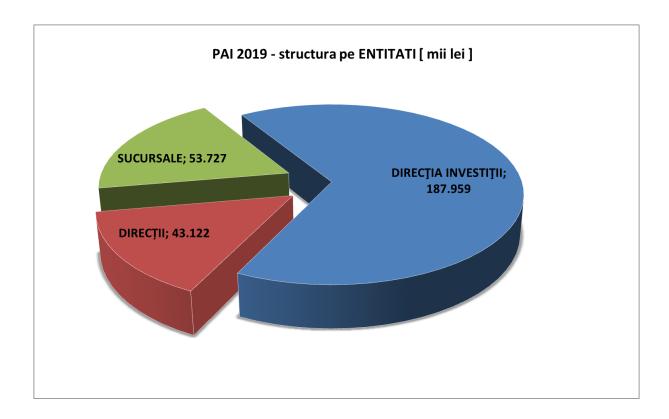


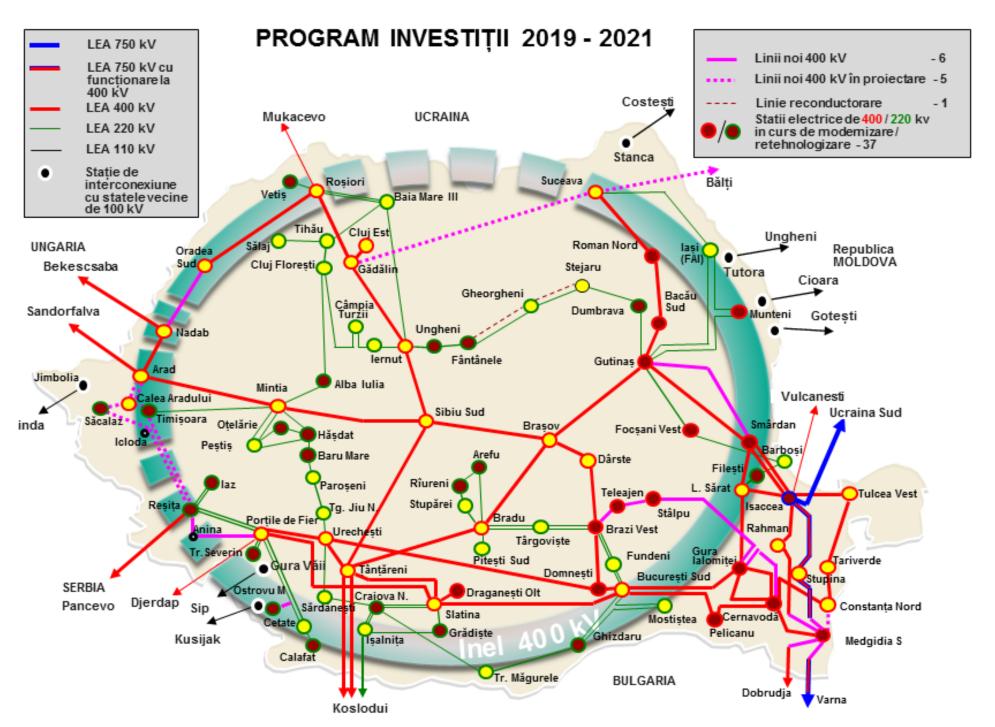
The 2019 investment expenses detailed by the main plan chapters are provided in Annex 1 to this Note.

Structure of expenses for investments specific to the Company in 2019



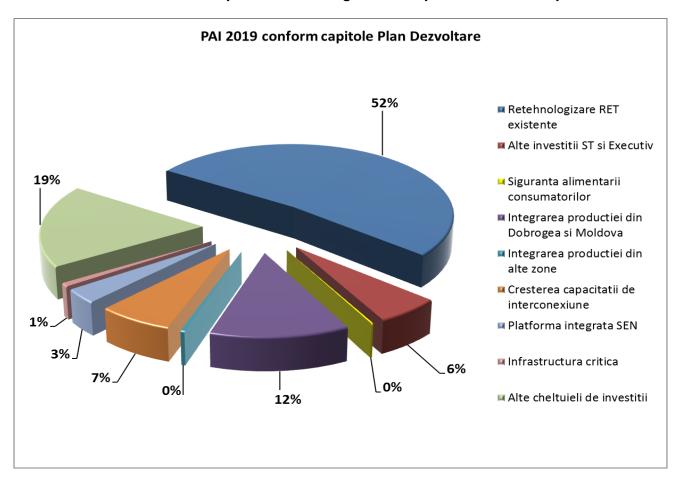
Total investment expenses of 2019 structured by entities





2. Details of the major investment projects from PAI 2019

A. Structure of investment expenses according to the chapters in the Development Plan



B. The main major investment objectives with execution contracts signed in previous years and in 2019 will be during the work execution stage (investments in progress) structured by the chapters of the Development Plan

> RET Refurbishment - 20 investment projects

- Refurbishment / Upgrade of substations: Medgidia Sud 110 kV, Turnu Severin Est, Domnesti, Dumbrava, Arefu, Raureni, Focsani Vest, Bacau Sud - Roman Nord, Ungheni, Munteni, Smardan, Craiova Nord, Hasdat, Otelarie, Iaz, Isaccea – Stage I, Vetis);
- Replacing transformers and autotransformers in electric substations;
- Research & development centre for live work (LW) technologies and fast intervention in SEN;
- Mobile bays;

Safety of consumption supply - 1 investment project

- Installing the 250 MVA transformer T3 in the 400/110 kV substation Sibiu Sud
- Integrating the output from RES and new power parks Dobrogea and Moldova 1 investment project
- Connecting the 400 kV OHL Isaccea-Varna and the 400 kV OHL Isaccea Dobrudja in the 400 kV substation Medgidia Sud - Stage II - the 400 kV double circuit OHL - Connections into the Medgidia Sud substation

Increasing the interconnection capacity - 4 investment projects

• The 400 kV simple circuit OHL PorTile de Fier – Anina – Resita;

- The 400/220/110 kV substation Resita NFIP: Secondary equipment and associated services:
- Refurbishing the 110 kV substation Timisoara and the 400 kV substation Timisoara;
- Extending the 400 kV substation Cernavoda (Stage II);
- Integrated SEN Platform -1 investment project
- Replacing the components of the EMS SCADA AREVA system

The total value of investments in progress is 208,751 thousand Lei, representing 73.00% of the Investment expenses specific to the Company

C. Investment objectives with execution which will begin in 2019 (New investments) total 24,341 thousand Lei, namely 8.60% of the Investment expenses specific to the Company

The latter are under different preparation stages for work:

- In the Commercial Division various stages of procurement procedures:
- > RET Refurbishment 3 investment projects
- Refurbishment / Modernisation of substations (Filesti, Baru Mare);
- Upgrading the electric supply of UnO DEN offices;
- > Safety of consumption supply 2 investment projects
- Replacing the 400/400/160MVA 400/231/22 kV autotransformer AT 3 ATUS-SF in substation Portile de Fier;
- Installing the 400 MVA, 400/231/22 kV autotransformer AT2 and associated bays in substation lernut;
- Integrating the output from RES and new power parks Dobrogea and Moldova -1 investment project
- Connecting the 400 kV OHL Isaccea Varna and the 400 kV OHL Isaccea Dobrudja in the 400 kV substation Medgidia Sud stage I – Extending the 400 kV substation Medgidia
- Increasing the interconnection capacity 4 investment projects
- The 400/220/110 kV substation Resita *LD: Primary equipment, associated services and work for the primary and secondary components*;
- The 400 kV substation Stalpu and upgrading the 110 kV and MV bays in electric substation Stalpu:
- The 400 kV double circuit OHL Cernavoda Stalpu;
- Extending the 400 kV substation Gura lalomitei by two bays;
- Metering system and management of electricity metering data on the wholesale market
 1 investment objective
- Under preparation to launch the procurement procedures in 2019:
- > RET Refurbishment 2 investment projects
- Upgrading the command-control-protection system and integrating in in the CTSI of substation Gradiste:
- Upgrading the 220 kV, 110 kV command-control-protection-metering systems in the 220/110/20 kV substation and refurbishing the MV and the dc&ac auxiliary services in the 220/110/20 kV substation Ghizdaru;

- > Integrating the output of power plants Other areas 2 investment projects
- The 220 kV double circuit OHL Ostrovu Mare RET;
- The 220 kV substation Ostrovu Mare:
- Integrating the output of RES and new power parks Dobrogea and Moldova 2 investment projects
- Converting the 220 kV OHL Brazi Vest Teleajen Stalpu to 400 kV including the AT procurement and the extension work to the related 400 kV and 220 kV substations within substation Brazi Vest;
- Increasing the transmission capacity of the 220 kV OHL Stejaru Gheorgheni-Fantanele;
- Increasing the interconnection capacity 1 investment project
- The 400 kV double circuit OHL Gutinas Smardan:
- <u>Under design (namely obtaining permits, agreements, authorisations, issuance of GD to launch the expropriation procedures)</u>:
- Integrating the output of RES and new power parks Dobrogea and Moldova 1 investment project
- The 400 kV OHL Constanta Nord Medgidia Sud
- Increasing the interconnection capacity 4 investment projects
- The 400 kV OHL Gadalin Suceava;
- The 400 kV OHL Suceava Balti;
- The Banat axis, stages II & III (the 400 kV double circuit OHL Resita-Timisoara-Sacalaz; the 400 kV OHL Timisoara Arad + the 400 kV substation Arad + the 400 kV substation Sacalaz).

3. <u>Main risks that might impact the achievement of PAI 2019 are provided in value and percentage in annex 2</u>

A. External

- 1. Delays in issuing the norms to take out of the forestry fund the lands corresponding to the corridor of overhead electric lines construction (Portile de Fier Anina Resita OHL-s)
- 2. Difficulies in obtaining endorsements from involved Authorities;
- 3. Delays of contractors' executing the work as per contractual schedules;

The impact of such risks might be 19.0% of the Company's own expenses in 2019.

B. Internal

- 1. Non-completion / non-launching some public procurement procedures caused by:
 - a. Great period of documents circulation between Company entities to be endorsed;
 - b. Legislative amendments in the public procurement domain;
 - c. Delays in elaborating the related technical documentations:
- 2. Conditional achievement of some projects by the stages of other projects;

Such risks might impact 12.2% of the Company's own 2019 expenses.

With such constraints the achievement of the Investment plan (Company's own expenses) will be about 69.0%.

4. Proposed decision

Taking into account the above and in accordance with the provisions of article 14 para (1) letter i) from the Articles of Association of CNTEE Transelectrica SA, updated on 09.11.2017 by Decision 14/2017 of the Shareholders' General Extraordinary Assembly, we propose the Shareholders' General Assembly as follows:

- Establishing the 2019 Investment Plan of CNTEE Transelectrica SA and estimating the investment expenses for 2020 and 2021 (PAI 2019) according to the annexes to this Note and
- Delegating the Company Directorate to proceed with changing (reviewing) the sums included in PAI 2019 without exceeding the financing sources.

DIRECTORATE

Chairman,

Marius Danut Carasol

Member,	Member,		
Claudia - Gina ANASTASE	Constantin SARAGEA		
Member,	Member,		
Andreea Georgiana FLOREA	Adrian SAVU		

Investment Division

Florentina RADUCANU - Director

Elaborated,

Silvia DAMIAN - Manager, DMPIAFE

DIRECTORATE:

Chairman, Marius Dănuț CARAȘOL *Member,* Claudia - Gina ANASTASE

Member, Constantin SARAGEA

Member, Andreea Georgiana FLOREA Member, Adrian SAVU

2019 COMPANY INVESTMENT PROGRAMME AND INVESTMENT EXPENDITURES ESTIMATED FOR 2020 AND 2021

(thousand lei, VAT free)

No.	Types of expenditures	expenditures PAI 2019 Quarterly instalment			Investment Programme estimation:			
	· ·		Quarter I	Quarter II	Quarter III	Quarter IV	2020	2021
	INVESTMENT EXPENDITURES-GENERAL TOTAL (i+ii)	284.808	32.071	57.469	57.372	137.895	660.146	535.252
i	COMPANY INVESTMENT EXPENDITURES (I+II+III)	283.107	31.580	56.504	57.197	137.825	653.930	535.252
I	ONGOING INVESTMENTS (I.A+I.B), of which:	206.673	26.370	39.132	44.006	97.165	321.027	217.697
I.A	Ongoing major investments	199.081	26.063	37.922	43.529	91.566	319.713	217.157
I.B	Other ongoing investments in the transmission branches and the Executive	7.592	307	1.210	477	5.598	1.314	540
II	NEW INVESTMENTS (II.A+II.B), of which:	24.341	4.122	3.617	5.891	10.709	276.358	312.687
II.A	New major investments	14.222	2.592	1.694	2.812	7.124	236.684	297.074
II.B	Other new investments in the transmission branches and the Executive	10.119	1.531	1.923	3.079	3.585	39.674	15.613
III	ALTE CHELTUIELI DE INVESTITII, din care:	52.093	1.087	13.755	7.300	29.951	56.545	4.869
\boldsymbol{A}	Acquisition of immovable property, including land	40	10	10	10	10	40	40
В	Independent equipment	40.928	101	9.126	6.936	24.765	53.734	3.500
	Expenditure for the preparation of Pre-feasibility study, Feasibility study and of other studies related to investment objectives, including the necessary expenses to obtain the permits, authorizations and agreements stipulated by law	3.011	225	671	301	1.814	1.495	520
D	Expenditures regarding expertise, design, technical assistance, technological tests, tests, handover to the beneficiary and execution on consolidations and interventions to prevent or eliminate the effects of accidental actions and natural disasters	1.975	548	120	0	1.307	0	0
E	Drilling works, land mapping, photogrammetry, seismic determinations, consultancy and other investment expenditures not covered by the other types of investments	6.140	203	3.828	53	2.055	1.276	809
F	Expenditures regarding expertise, design, technical assistance, technological tests, tests, handover to the beneficiary and execution on major repairs, as well as other categories of intervention works,	0	0	0	0	0	0	0
ii	INVESTMENT EXPENSES WITH FINANCING FROM THE CONNECTION TARIFF	1.701	492	965	175	70	6.215	0

DI Director Florentina RĂDUCANU DMPIAFE Manager Silvia DAMIAN

RISK IMPACT ON PAI 2019 - added

Risks	PAI Pos.	Investment objective	Risk impact [thousand lei]	Weight in the total expenses of the Company
EXTERNAL	ı		53.650	19,0%
Delayed issue of forestry fund GD/contract termination by Contractor		Converting Portile de Fier - Resita - Timisoara - Sacalaz - Arad - axis Stage I to OHL 400 kV simple circuit Portile de Fier - (Anina) - Resita	10.000	
TOTAL		10.000	3,5%	
Difficulties in obtaining permits		400 kV OHL Gădălin - Suceava	2.000	
		TOTAL	2.000	0,7%
		220/110 /20 kV Arefu substation modernisation	75	
		400/110/20 kV Domneşti substation refurbishment	10.000	
		OHL Isaccea - Dobrudja in 400 kV Medgidia Sud substation	10.000	
		Focsani Vest modernisation	5.500	
Execution delays		220/110 kV Dumbrava substation modernisation	2.500	
		110 kV Bacău Sud and Roman Nord substations modernisation related to the 400 kV Moldova axis	2.500	
		220/110 kV Craiova Nord substation refurbishment	8.500	
		400/110/20 kV Smårdan substation refurbishment	2.500	
		220/110 kV Răureni substation modernisation	75	
		TOTAL	41.650	14,7%
INTERNAL	ı		34.533	12,2%
		OHL Cernavoda-Stalpu	3.114	
		Expansion of the 400 kV Gura lalomitei substation by two 400 kV OHL Cernavoda 3 and 400 kV OHL Stâlpu	500	
		Converting Portile de Fier - Resita - Timisoara - Sacalaz - Arad - axis Stage I to 400 kV, 400/220/110 kV Resita substation	500	
		Racordarea LEA 400 kV Isaccea - Varna şi LEA 400 kV Isaccea - Dobrudja în staţia 400 kV Medgidia Sud - Etapa I - Extinderea staţiei 400 kV Medgidia	12.000	
		Power supply modernisation at UNO-DEN headquarters	500	
Procurement procedures not started/not completed		Converting 220kV OHL Brazi Vest – Teleajen – Stalpu to 400 kV, including procurement of auto-transformer 400MVA 400/220/20kV and expansion works at the 400kV and 220kV related substations, in 400/220/110kV Brazi Vest substation	500	
		DET Craiova operational headquarters	4.400	
		Modernisation of command-control-protection and integration systems in CTSI of Gradiste substation	1.000	

TOTAL 2018 risk impact		88.183	31,1%
TOTAL			2,3%
Projects conditioned by other projects' progress	220 kV Cetate - Calafat OHL modernisation by replacing the protection wire with a new one, OPGV type (conditioned by Ostrovu Mare Power Transmission Grid)	1.000	
	110 kV Medgidia Sud substation refurbishment (conditioned by Medgidia 400 kV stage)	5.600	
	27.933		
	Sistem Back-up & Restore	3.000	
	Sistem Printing	1.370	
	220 kV Ostrovu Mare substation	95	
	Power Transmission Grid, Ostrovu Mare OHL	954	

Investment Department Director Florentina RĂDUCANU

Drawn up by DMPIAFE Manager Silvia DAMIAN