

PRELIMINARY COST ESTIMATE FORM

EC# 9129	MPA: <input checked="" type="checkbox"/>	MC: <input type="checkbox"/>	REV. 0	BSI: <div style="background-color: yellow; height: 15px; width: 100%;"></div>	SYSTEM: Full-Scope Simulator
UNIT: <input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2		EC TITLE: Purchase and installation of a simulator with virtual panels			

Chapter	Name of expenditure chapters and subchapters	Value excluding VAT ¹⁾	
		<i>Internal</i>	<i>External</i>
1	Expenses for obtaining and developing land		
1.	Land acquisition		
1.	Land development		
1.	Arrangements for environmental protection and restoration to original condition		
1.	Expenses for relocation/protection of utilities (diversion of utility networks from the site).		
TOTAL Chapter 1		0	0
2	Expenses for providing the utilities necessary for the project		
TOTAL Chapter 2		0.00	0.00
3	Expenses for design and technical assistance		
3.1	Studies	0	
	3.1.1 Field studies		
	3.1.2 Environmental impact report		
	3.1.3 Specialised studies required depending on the specific nature of the investment		
3.	Supporting documentation and expenses for obtaining permits, agreements and authorisations		58,498.56
3.	Technical assessment of existing buildings, structures and/or technical projects		14,624.64
3.	Energy performance certification and energy audit of buildings		
3.	Design and engineering	133,246.72	1,451,309.92
	3.5.1. Design theme	89,372.80	
	3.5.2. Pre-feasibility study		
	3.5.3. Feasibility study/documentation for approval of intervention works and general estimate		
	3.5.4. Technical documentation required to obtain approvals/agreements/authorisations		
	3.5.5. Technical quality verification of the technical design and execution details	25,999.36	
	3.5.6. Technical project and execution details	17,874.56	
3.6	Organisation of procurement procedures	6,093.60	
3.7	Consultancy	0	0
	3.7.1. Project management for the investment objective		
	3.7.2. Financial audit		

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Chapter	Name of chapters and subchapters of expenditure		Value excluding VAT ¹⁾ Lei	
			Internal	External
3.8	Technical assistance		10,359.12	21,936.96
	3.8.1. Technical assistance from the designer		0	21,936.96
		3.8.1.1. During the execution of the works		21,936.96
		3.8.1.2. For the designer's participation in the phases included in the execution works control programme		
	3.8.2. Site management		10,359.12	0
TOTAL Chapter 3⁴⁾			149,699.44	1,546,370.08
4	Basic investment expenses			
4.1	Construction and installations		62,154.72	0
4.2	Installation of machinery, technological and functional equipment		58,701.68	5,044,758.40
4.3	Machinery, technological and functional equipment requiring installation		30,000	2,522,379.20
4	Machinery, technological and functional equipment that does not require assembly and transport equipment			
4.	Facilities			101,560.00
4.	Intangible assets			2,522,379.20
TOTAL Chapter 4⁴⁾			150,856.40	10,191,076.80
5	Other expenses			
5	Site organisation		0	0
	5.1.1 Construction works			
	5.1.2 Related expenses			
5.	Commissions, fees, taxes, credit costs		0	0
	5.2.1. Fees and interest related to the financing bank's loan			
	5.2.2. ISC fee for quality control of construction works			
	5.2.3. ISC fee for authorising construction works			
	5.2.4. Share related to the Social House of Builders - CSC			
	5.2.5. Fees for agreements, compliance notices and authorisation for construction/demolition			
5.3	Miscellaneous and unforeseen expenses Lucrari de interventie la constructii existente ▼		2,391,757.18	
5.	Information and advertising expenses			
TOTAL Chapter 5			0	0
6	Expenses for technological trials, tests and training at the beneficiary's premises			
6.	Training of operating personnel		0.00	0.00
6.2	Technological samples and tests		13,812	1,261,190
TOTAL Chapter 6⁴⁾			13,812	1,261,190
COST INTERNAL RESOURCES CNE		lei	314,368	
		euro	61,907.84	
EXTERNAL CONTACT COSTS		lei		12,998,636
		euro		2,559,795
TOTAL ESTIMATED COST		lei	19,658,231	
		euro	3,871,255	
Of which Construction-Installation (C+I)⁶⁾			120,856.40	5,044,758.40

Clarifications regarding cost distribution ⁸

Considering Article 10, paragraph (2¹) of Section 5 and Chapter 7 of the General Estimate "Expenses related to the budget margin and for the establishment of the implementation reserve for price adjustment" of Government Decision 907/2016 on the stages of preparation and framework content of technical and economic documentation related to investment objectives/projects financed from public funds, the total estimated cost also includes:

- expenses related to the 25% budget margin (1.2 + 1.3 + 1.4 + 2 + 3.1 + 3.2 + 3.3 + 3.5 + 3.7 + 3.8 + 4 + 5.1.1);
- expenses for setting up the implementation reserve for price adjustment of 10% from chapter 4;

Thus, the total estimated cost is 19,658,231 lei (€3,871,255), of which:

- internal CNE resource costs 314,368 lei (€61,908);
- externally contracted costs 12,998,636 lei (€2,559,795);
- miscellaneous and unforeseen expenses 2,391,757 lei (€471,004);
- costs related to the 25% budget margin 2,934,362 lei (577,858 €);
- costs for setting up the implementation reserve for price adjustment 1,019,108 lei (200,691 €). ⁽¹³⁾

		Name	Signature	Date
Prepared by:	RSE/RCE	C. Popescu		
Verified by:	Eng. Sp. RSE/RCE	A. Stoica		
Approved by:	Head of DIR Section	N/A		
	Head of SIPR²⁾	C. Popa		
	Head of SCPI²⁾ (budget holder)	L. Anca		
	Head of Technical Service³⁾	I. Stefan		
	Head of Service within DPST	M. Barbu		

NOTES

- 1) Prices as of: 27.06.2025 1 euro = **5.078** lei
- 2) Signatures/approvals required in the case of project modifications financed from the investment budget (D-MM/D-PR).
- 3) Head of RSE/RCE, including Radiation Protection, Heads of Chemical, MID, SEIA, SIT, PF, SSIR-BTR Sections.
- 4) They will also include the values obtained from the Annex "Partial breakdown of the estimated cost (chapters 3, 4, 6)".
- 5) The estimated cost for chapters 3, 4, 6 is detailed with the support of the departments/services involved;
- 6) The value of construction and installation works (C+M) includes the expenses provided for in chapters/subchapters 1.2, 1.3, 1.4, 2, 4.1, 4.2, 5.1.1 of the general estimate.
- 7) ISC - State Construction Inspectorate.
- 8) To be completed when there are mixed expenses (from the investment budget and from CNE internal resources).
- 9) This form complies with Government Decision 907/2016.
- 10) In the "TOTAL Chapter X" sections, if there are no expenses, enter the value 0.
- 11) The calculated costs will be added to the other chapters and will form CNE INTERNAL RESOURCE COSTS and EXTERNALLY CONTRACTED COSTS, respectively, which will be transferred to FPC-0502 (MPA) / FPC-0800 (MC) in Euro.

12) 10% in the case of the execution of a new investment objective/object; 20% in the case of the execution of intervention works on existing constructions.

13) 0% of Chapter 4 (external) of this Form – for the duration of the objective's execution of 0 to 12 months; 10% of Chapter 4 (external) of this Form – for the duration of the objective's execution of 12 to 24 months; 15% of Chapter 4 (external) of this Form – for the duration of the objective's execution of more than 24 months;

Please note!

The preliminary estimated cost assessment for the MPA/MC will only be made upon completion of the solution, using updated market costs.

PRELIMINARY COST ESTIMATE SHEET

PARTIAL DETAIL OF THE ESTIMATED COST FOR CHAPTERS 3, 4, 6

EC# 912	MPA: <input checked="" type="checkbox"/>	MC: <input type="checkbox"/>	REV. 0	BSI: <div style="background-color: yellow; height: 15px; width: 100%;"></div>	SYSTEM: Full-Scope Simulator
UNIT: <input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2		EC TITLE: Purchase and installation of a simulator with virtual panels			

Chapter	Name of expenditure chapters and subchapters	Value excluding VAT ¹⁾ Lei	
		Internal	External
3	Expenses for design and technical assistance		
3.5.	Design and engineering		
	Design and engineering with internal resources CNE Calculation method (Subtotal a-e = No. of hours * 20 euro/h * No. of persons)		
	3.5.1. Design theme (conceptual solution MPA/MC)		
	a) System/Component Engineer (DSP, DIC, SEIA, etc.)	0.	
	<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. of hours</div> <div style="flex: 1; padding: 2px;"><div style="background-color: yellow; height: 15px; width: 100%;"></div></div> </div>		
	<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. of persons</div> <div style="flex: 1; padding: 2px;"><div style="background-color: yellow; height: 15px; width: 100%;"></div></div> </div>		
	b) Electrical I&C Design (SPEA)	8,124.80	
	<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. Hours</div> <div style="flex: 1; padding: 2px; text-align: center;">40</div> </div>		
	<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. of persons</div> <div style="flex: 1; padding: 2px; text-align: center;">2</div> </div>		
	c) Mechanical/Piping Design (SPMC)	0.00	
	<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. Hours</div> <div style="flex: 1; padding: 2px;"><div style="background-color: yellow; height: 15px; width: 100%;"></div></div> </div>		
	<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. of persons</div> <div style="flex: 1; padding: 2px;"><div style="background-color: yellow; height: 15px; width: 100%;"></div></div> </div>		
	d) Construction Engineering (BIC)	8,124.80	
	<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. Hours</div> <div style="flex: 1; padding: 2px; text-align: center;">40</div> </div>		
	<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. of persons</div> <div style="flex: 1; padding: 2px; text-align: center;">2</div> </div>		
	e) Digital Process Systems and Special Instrumentation Service (SSDPIS)	0.	
	<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. Hours</div> <div style="flex: 1; padding: 2px;"><div style="background-color: yellow; height: 15px; width: 100%;"></div></div> </div>		
	<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. of persons</div> <div style="flex: 1; padding: 2px;"><div style="background-color: yellow; height: 15px; width: 100%;"></div></div> </div>		
	f) Simulator (SS)	73.123.20	
	<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. Hours</div> <div style="flex: 1; padding: 2px; text-align: center;">240</div> </div>		
	<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. of persons</div> <div style="flex: 1; padding: 2px; text-align: center;">3</div> </div>		
	g) Security analyses/calculations (DSN-AIP)	0.	
	<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. Hours</div> <div style="flex: 1; padding: 2px;"><div style="background-color: yellow; height: 15px; width: 100%;"></div></div> </div>		
	<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. of persons</div> <div style="flex: 1; padding: 2px;"><div style="background-color: yellow; height: 15px; width: 100%;"></div></div> </div>		
	Internal Subtotal 3.5.1. = Subtotal a) + Subtotal b) Subtotal g)	89,372.80	
3.5.5. Technical quality verification of the technical design and execution details (external approval)			
a) Electrical I&C design (SPEA)	4,874.88		
<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. Hours</div> <div style="flex: 1; padding: 2px; text-align: center;">24</div> </div>			
<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. of persons</div> <div style="flex: 1; padding: 2px; text-align: center;">2</div> </div>			
b) Mechanical/Piping Design (SPMC)	0.00		
<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. of hours</div> <div style="flex: 1; padding: 2px;"><div style="background-color: yellow; height: 15px; width: 100%;"></div></div> </div>			
<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. of persons</div> <div style="flex: 1; padding: 2px;"><div style="background-color: yellow; height: 15px; width: 100%;"></div></div> </div>			
c) Construction Engineering (BIC)	4,874.88		
<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. Hours</div> <div style="flex: 1; padding: 2px; text-align: center;">24</div> </div>			
<div style="display: flex; border-bottom: 1px solid black;"> <div style="flex: 1; border-right: 1px solid black; padding: 2px;">No. of persons</div> <div style="flex: 1; padding: 2px; text-align: center;">2</div> </div>			

	d) Digital Process Systems and Special Instrumentation Service (SSDPIS)		0.	
	No. Hours			
	No. of persons			
	e) Simulator (SS)		16,249.60	
	No. Hours	80		
	No. of persons	2		
Internal subtotal 3.5.5 = Subtotal a) + Subtotal b)..... Subtotal e)			25,999.36	

PRELIMINARY COST ESTIMATE SHEET
PARTIAL DETAIL OF THE ESTIMATED COST FOR CHAPTERS 3, 4, 6

Chapter	Name of expenditure chapters and subchapters		Value excluding VAT ¹⁾ Lei	
			Internal	External
3.5	3.5.6. Technical design and execution details (DRP/MC detail solution)			
	a) System/Component Engineer (DSP, DIC, SEIA, etc.)		0.	
	No. Hours			
	No. of persons			
	b) Electrical I&C Design (SPEA)		4,874.88	
	No. Hours	24		
	No. of persons	2		
	c) Mechanical/Piping Design (SPMC)		0.00	
	No. Hours			
	No. of persons			
	d) Construction Engineering (BIC)		4,874.88	
	No. Hours	24		
	No. of persons	2		
	e) Digital Process Systems and Special Instrumentation Service (SSDPIS)		0.	
	No. Hours			
	No. of persons			
	f) Simulator (SS)		8,124.80	
No. Hours	40			
No. of persons	2			
Subtotal Internal 3.5.6 = Subtotal a) + Subtotal b)..... Subtotal f)		17,874.56		
External Design and Engineering				
External Services (Design, Independent Verification, Seismic Analysis, Stress Analysis, etc.)				
Calculation method (External subtotal) = according to External Services offer)			1,451,309.92	
Internal subtotal 3.5. = Internal subtotal 3.5.1 + 3.5.5 + 3.5.6		133,246.72		
Subtotal 3.5 = Internal Subtotal 3.5 + External Subtotal)		1,584,556.64		
3.	Organisation of procurement procedures with internal resources CNE			
	Calculation method (Subtotal chapter 3.6 = No. of hours * 15 euros/hour * No. of persons)		6,093.60	
	No. of hours	80		
No. of persons	1			
3.7	Consultancy			
	Calculation method (Subtotal 3.7 = according to external services offer)			
3.8.2	Site management			
	a) CNE site management (DIR, SEIA, DDI)		10,359.12	
	Calculation method (Subtotal chapter 3.8 a) = No. of hours * 17 euro/h * No. of persons)			
	No. of hours	12		
	No. of persons	1		
	b) External site management			
	Calculation method (Subtotal 3.8 b) = according to the External Services offer)			
Subtotal 3.8 = Subtotal 3.8 a) + Subtotal 3.8 b)		10,359.12		
TOTAL Chapter 3 = Subtotal 3.5 + Subtotal 3.6 + Subtotal 3.7 + Subtotal 3.8		1,601,009.36		

PRELIMINARY COST ESTIMATE SHEET
PARTIAL DETAIL OF THE ESTIMATED COST FOR CHAPTERS 3, 4, 6

Chapter	Name of expenditure chapters and subchapters		Value excluding VAT ¹⁾ Lei		
			Internal	External	
4	Basic investment expenses				
4.	Construction and installations				
	Execution/evaluation with CNE resources				
	Calculation method (Subtotal a-e = No. of hours * 17 euro/h * No. of persons)				
	a) SIREA		20,718.24		
		No. of hours			8
		No. Persons			3
	b) SIRM		0.00		
		No. Hours			
		No. of persons			
	c) SSG		31,077.36		
		No. Hours			120
		No. of persons			3
	d) CNE assessment (DIR SEIA, DDI)		3,453.04		
		No. Hours			4
		No. of persons			1
	e) CNE supervision (DIR, SEIA, DDI)		6,906.08		
		No. Hours			8
		No. of persons			1
	Subtotal Internal 4.1 = Subtotal a) + Subtotal b) +Subtotal e)		62,154.72		
	Execution with Contractor				
	f) External services (Installation)				
	Calculation method (Subtotal 4.1f) = according to External Services offer)				
	Subtotal 4.1 = Internal Subtotal 4.1 + Subtotal 4.1f)		62,154.72		
4.2	Installation of machinery, technological and functional equipment, components/materials				
	Execution/evaluation with CNE resources				
	Calculation method (Subtotal a-e = No. of hours * 17 euro/hour * No. of persons)				
	a) SIREA, SS		31,077.36		
		No. of hours			12
		No. of persons			3
	b) SIRM		10,359.12		
		No. Hours			40
		No. of persons			3
	c) SSG		6,906.08		
		No. Hours			40
		No. of persons			2
	d) CNE assessment		3,453.04		
		No. Hours			4
		No. of persons			1
	e) CNE supervision (DIR, SEIA, DDI)		6,906.08		
		No. Hours			80
		No. Persons			1
	Subtotal Internal 4.2 = Subtotal a) + Subtotal b) +Subtotal e)		58,701.68		
	Execution with Contractor				
	f) External services (Installation)				
	Calculation method (Subtotal 4.2f) = according to External Services offer)			5,044,758.40	
	Subtotal 4.2 = Internal Subtotal 4.2 + Subtotal 4.2f)		5,103,460.08		

PRELIMINARY COST ESTIMATE SHEET

PARTIAL DETAIL OF THE ESTIMATED COST FOR CHAPTERS 3, 4, 6

Chapter	Name of expenditure chapters and subchapters	Value excluding VAT ¹⁾ Lei		
		Internal	External	
4.	Machinery, technological and functional equipment requiring assembly			
	Calculation method Subtotal Internal 4.3 = Σ (No. of products * Unit price)	30,000		
	Calculation method External subtotal 4.3 = Σ (No. of products * Unit price)		2,522,379.20	
	Subtotal 4.3 = Internal Subtotal 4.3 + External Subtotal 4.3	2,552,379.20		
TOTAL Chapter 4 = Subtotal 4.1 + Subtotal 4.2 + Subtotal 4.3		7,717,994.00		
5	Miscellaneous and unforeseen expenses (10% in the case of the execution of a new investment objective/object; 20% in the case of intervention works on existing constructions)			
	Calculation method 10% of (Subtotal chap. 1.2 + Subtotal chap. 1.3 + Subtotal chap. 1.4 + Total chap. 2 + Subtotal chap. 3.5 + Subtotal chap. 3.8 + Total chap. 4)	1,195,878.59		
	Calculation method 20% of (Subtotal chap. 1.2 + Subtotal chap. 1.3 + Subtotal chap. 1.4 + Total cap. 2 + Subtotal cap.3.5 + Subtotal cap.3.8 + Total cap. 4)	2,391,757.18		
6	Expenses for technological trials, tests and delivery to the beneficiary			
6.	Training of operating personnel (operation, maintenance, engineering)			
	a) Internal training with CNE resources Calculation method (Subtotal 6.1a) = No. of hours * 24 euros/hour * No. of persons)	0.		
	No. of hours			
	No. of persons			
	b) External training Calculation method (Subtotal 6.1b) = Cost/person * No. of persons)		0	
	Cost/person			
	No. of persons			
	Subtotal 6.1 = Subtotal 6.1.a) + Subtotal 6.1.b)		0	
	6.	Technological samples and tests		
		a) Commissioning with internal CNE resources Calculation method (Subtotal 6.2a) = No. of hours * 17 euro/hour * No. of persons * No. of teams)	13,812.16	
No. of hours		40		
No. Equipment		1		
No. Persons		4		
b) Commissioning by external organisations Calculation method (Subtotal 6.2b) = Cost/equipment * No. of equipment)			1,261,189.60	
Cost/equipment				1261189.6
No. of equipment				1
Subtotal 6.2 = Subtotal 6.2.a) + Subtotal 6.2.b)		1,275,001.76		
TOTAL Chapter 6 = Subtotal 6.1 + Subtotal 6.2		1,275,001.76		
PARTIAL COSTS INTERNAL RESOURCES CNE¹⁾ Internal Subtotal 3.5 + Subtotal 3.6 + Subtotal 3.8a) + Internal Subtotal 4.1 + Internal Subtotal 4.2 + Internal Subtotal 4.3 + Subtotal 6.1a) + Subtotal 6.2a)		314,368.00		
PARTIAL COSTS EXTERNAL RESOURCES CNE¹⁾ Subtotal ext) + Subtotal 3.7 + Subtotal 3.8b) + Subtotal 4.1.f) + Subtotal 4.2.f) + External Subtotal 4.3 + Subtotal 6.1b) + Subtotal 6.2b)		10,279,637.12		
		Name	Signature	Date
Prepared by:	RSE/RCE	C.V. Popescu		