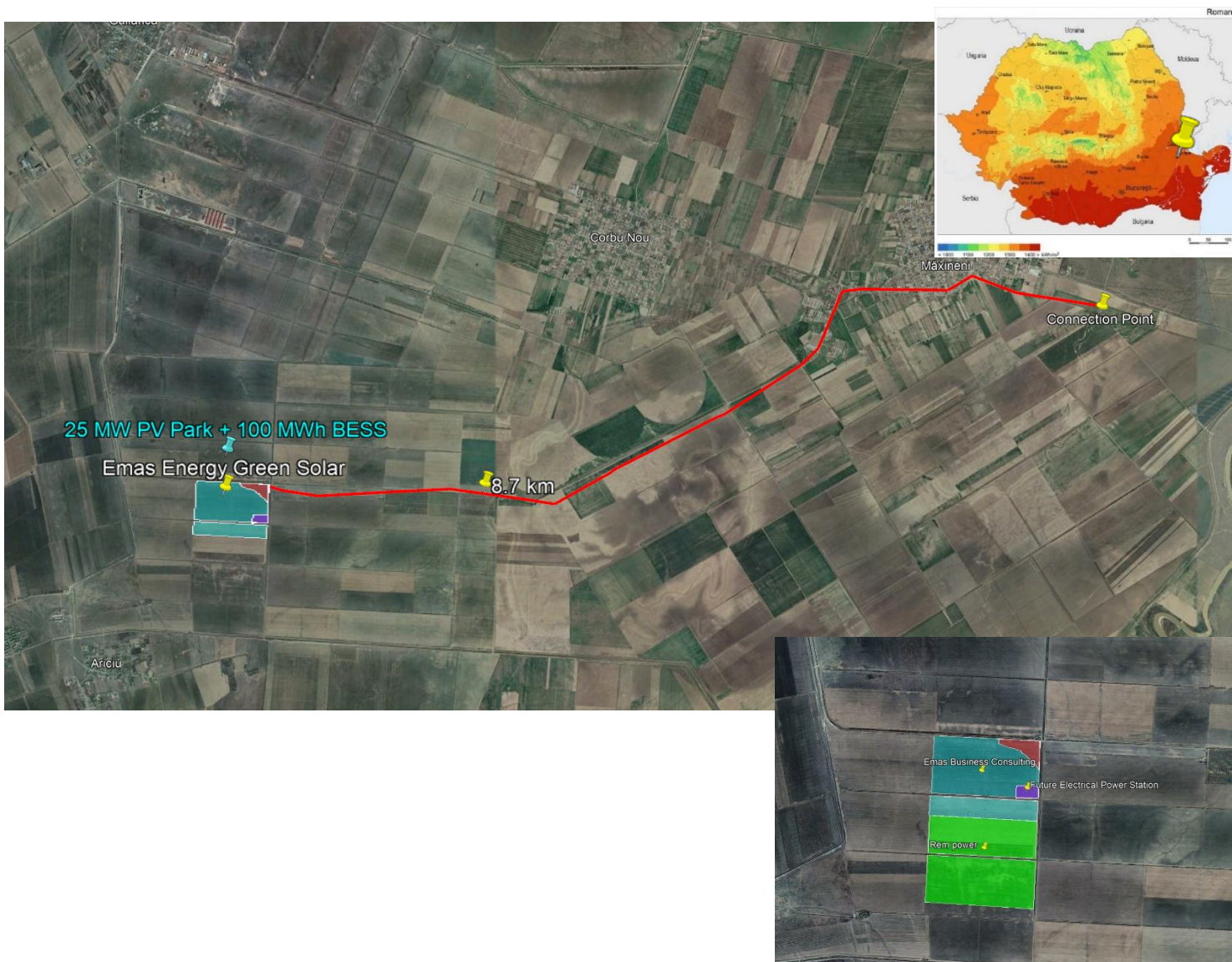




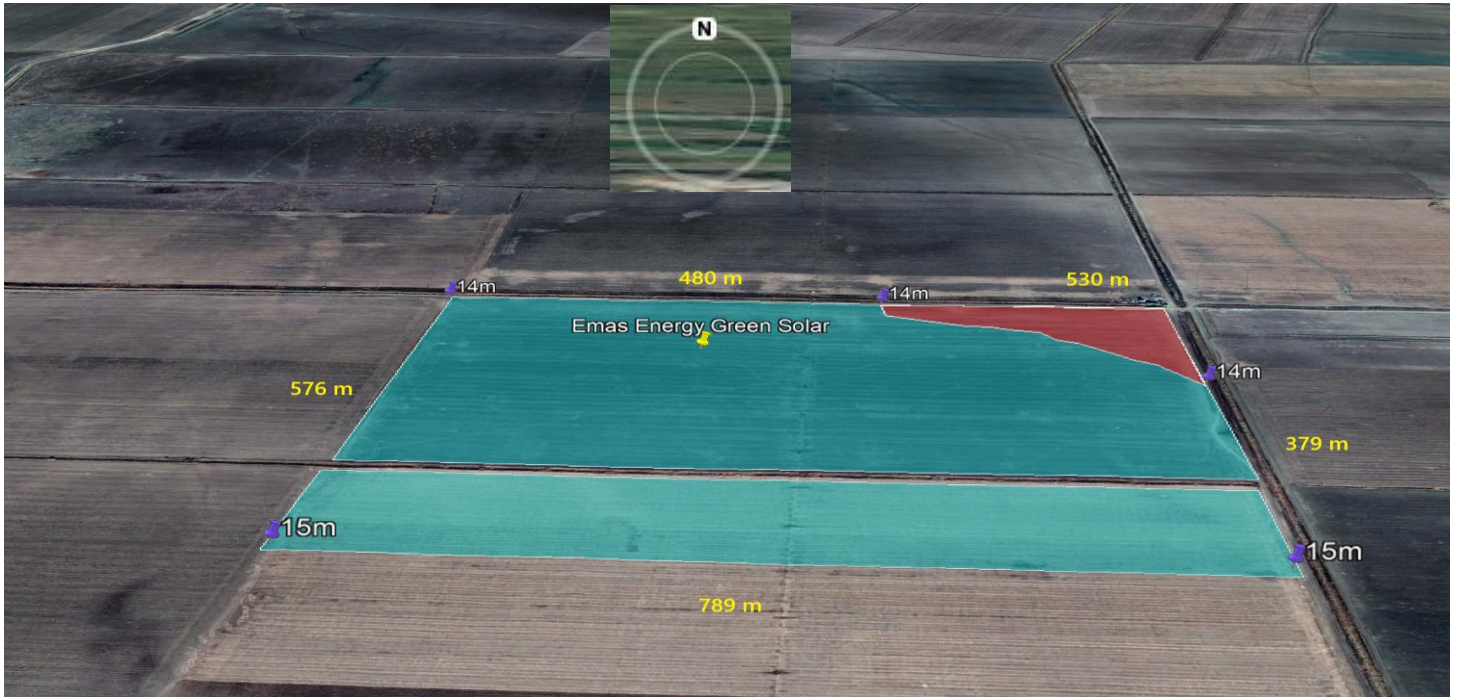
PV Park + BESS

Project: Scortaru Nou 1, BR
Land Surface: 43 Ha
Installed PV Power: 25 MWp
BESS - Storage Capacity: 100 MWh

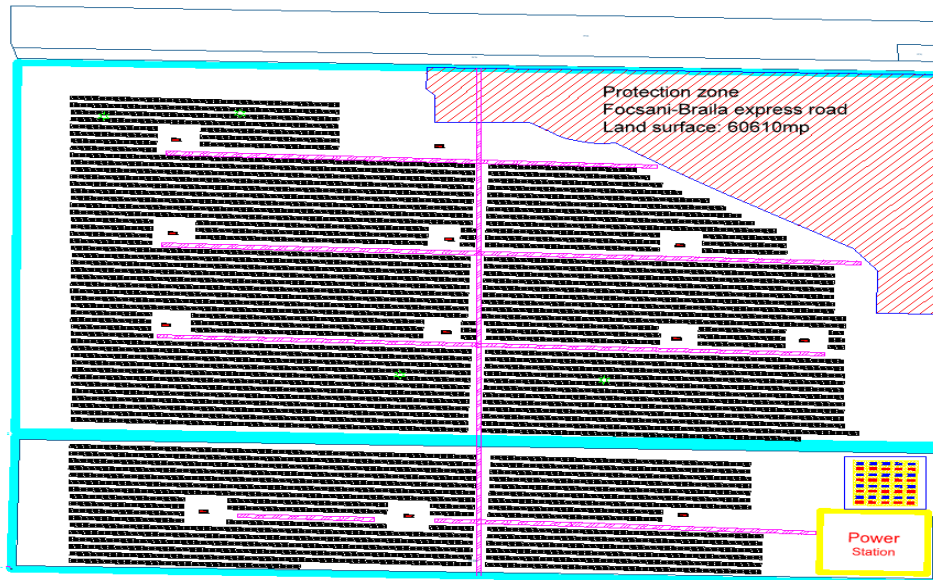




Curves Level



Photovoltaic Park + Storage Capacity Layout





PV Productions

Peak power: 25 MWp

Module surface: 117,473.3 m²

Total number of modules: 45455

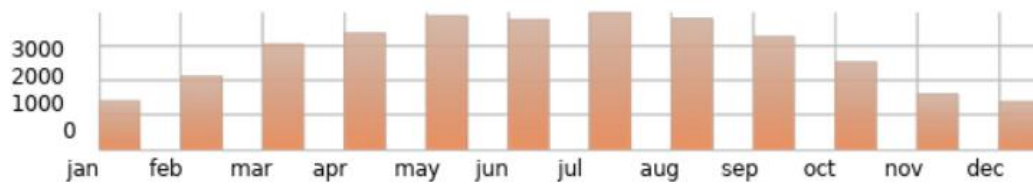
Total number of inverters: 246

Average values:

Annual production (DC) : 36,329 MWh

Annual production (AC) : 34,285 MWh

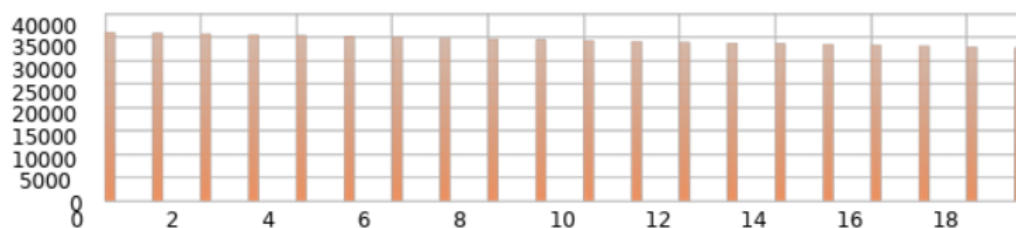
Monthly AC production (MWh/month):



Months	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec
MWh	1,415	2,127	3,065	3,392	3,881	3,782	3,988	3,799	3,285	2,551	1,604	1,396



AC production year by year (MWh):



Years	1	2	3	4	5	6	7	8	9	10
MWh	35,941	35,761	35,583	35,405	35,228	35,052	34,877	34,702	34,529	34,356

Years	11	12	13	14	15	16	17	18	19	20
MWh	34,185	34,014	33,844	33,674	33,506	33,338	33,172	33,006	32,841	32,677

EMISSIONS AVOIDED: 13,714 CO₂ equivalent (ton) *

* Quantity of greenhouse gases that would have been emitted during the observation period if this electricity had been generated through conventional means (20 g eq CO₂/kWh)

* Important: this does not mean that all the emissions would be avoided, since the process of manufacturing and transporting PV modules also generates greenhouse gas emissions.



Economics PV + BESS

Project assumptions		
Project name	Scortaru Nou 1, Braila	
PV Installed Capacity	25.00	MWp
Annual energy production AC/MWp	1,398	MWh/Mwp/year
Annual PV panel degradation	0.5%	p.a.
Installed Storage Capacity	100	MWh
Charge-Discharge Battery cycles/days	4	hours
Annual BESS degradation	3%	p.a.
Energy produced base price	60	€/MWh
Balancing Market energy price	900	€/MWh
DAM energy price	100	€/MWh
IDM energy price	200	€/MWh
Inflation rate	3%	p.a.
Project cost		
Storage equipment cost	150,000	€/MWh
Other cost related to storage (connection et	50,000	€/MWh
Cost Storage Batteries (BESS)	20,000,000	€
Cost PV park	550,000	€/MWp
Cost PV park	13,750,000	€
TOTAL COST PV park + Storage	33,750,000	€
Operational cost		
Land lease	3,000	€/MWp/year
Insurance/ MW/year	3,000	€/MWp/year
Operation& Maintenance/ MW/year	3,000	€/MWp/year
Balancing & forecasting services	1,000	€/MWp/year
Accounting, bank, legal, Opcom fees etc	6,000	€/year
Utilities (energy and water)	2,000	€/MWp/year
Contingencies/year	5%	p.a.
Security services	1,000	€/MWp/year
Tax on land and construction	2,500	€/year
Financial assumptions		
Equity	10,125,000	€
Loan Amount	23,625,000	€
Leverage	70%	%
VAT credit line (19% of CAPEX hard cost)	6,412,500	€
Interest rate loan - Euribor 1 M	2.68	%
Interest Margin	4.00	%
Loan Maturity	10	years
Grace period	12	months
Monthly Instalments	108	months
Nominal cost of equity	15%	% p.a.
Cost of debt	6.4%	% p.a.
Tax rate	16%	% p.a.
WACC	8.3%	% p.a.
Financial ratios project		
IRR project	24%	%
IRR equity	74%	%
NPV project	19,517,330	€
Payback period	4	years



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operatorul pieței de energie electrică și de gaze naturale din România



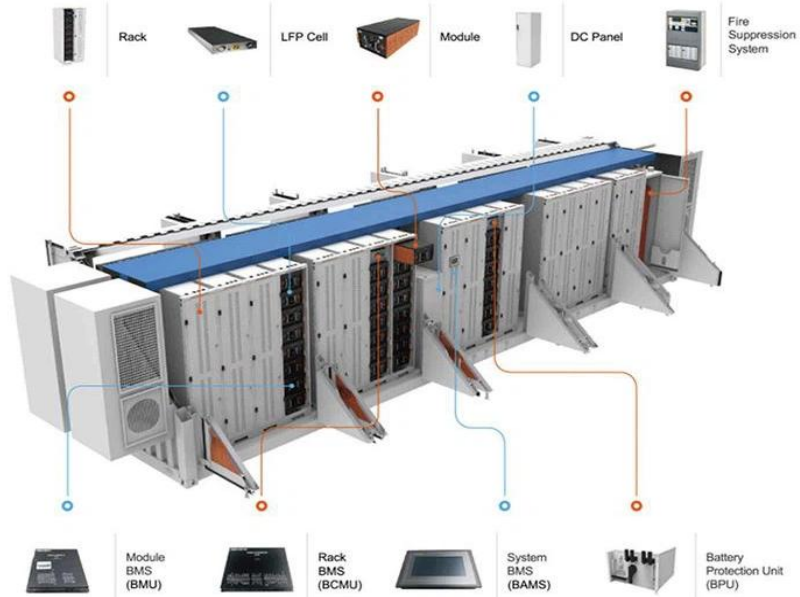
Tranzacții - Rezultate	Tranzacționare - Produse	Anunțuri - Știri	Compania																																																																																																																																																																																												
<p>HOME</p> <p>Tranzacții - Rezultate »</p> <p>Tranzacționare - Produse »</p> <p>Mecanism de achiziție centralizată de energie electrică (MACEE) »</p> <p>Contracte pentru Diferență (CID) »</p> <p>Anunțuri - Știri »</p> <p>Compania »</p> <p>Governanță Corporativă »</p> <p>Important pentru prosumatori! Prețul mediu ponderat pe PZU pentru martie 2025:</p>	<p>EU IPO</p> <p>ROPEX_DAM_H</p> <table border="1"> <tr> <td></td> <td colspan="12">Piața pentru ziua următoare - Zia de livrare 11/4/2025 [lei/MWh]</td> </tr> <tr> <td></td> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td>ROPEX_DAM_Base</td> <td>406,80</td><td>394,87</td><td>376,10</td><td>335,46</td><td>340,63</td><td>380,15</td><td>425,89</td><td>552,18</td><td>557,48</td><td>350,00</td><td>311,46</td><td>56,19</td><td>1,38</td> </tr> <tr> <td>ROPEX_DAM_Peak</td> <td>270,62</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td> </tr> <tr> <td>ROPEX_DAM_Off_Peak</td> <td>542,97</td><td>0,01</td><td>0,01</td><td>0,01</td><td>0,04</td><td>234,22</td><td>472,86</td><td>750,12</td><td>1.071,16</td><td>1.026,91</td><td>852,30</td><td>726,05</td><td>547,60</td> </tr> </table> <p>ROPEX_FM_M</p> <table border="1"> <tr> <td></td> <td colspan="12">Piața la termen 2023-2025 [lei/MWh]</td> </tr> <tr> <td></td> <td>ian</td><td>feb</td><td>mar</td><td>apr</td><td>mai</td><td>iun</td><td>iul</td><td>aug</td><td>sep</td><td>oct</td><td>nov</td><td>dec</td> </tr> <tr> <td>ROPEX_FM_2023</td> <td>889,15</td><td>973,66</td><td>977,64</td><td>956,10</td><td>896,09</td><td>860,08</td><td>860,14</td><td>848,39</td><td>846,99</td><td>848,07</td><td>851,48</td><td>850,40</td><td>851,32</td> </tr> <tr> <td>ROPEX_FM_2024</td> <td>498,90</td><td>570,29</td><td>566,27</td><td>471,77</td><td>473,65</td><td>459,20</td><td>465,66</td><td>486,90</td><td>497,59</td><td>497,97</td><td>510,17</td><td>511,08</td><td>512,15</td> </tr> <tr> <td>ROPEX_FM_2025</td> <td>517,76</td><td>526,85</td><td>526,01</td><td>519,46</td><td>505,10</td><td>505,91</td><td>505,53</td><td>520,78</td><td>519,46</td><td>519,38</td><td>521,82</td><td>521,61</td><td>521,82</td> </tr> </table> <p>ROPEX_GC_M</p> <table border="1"> <tr> <td></td> <td colspan="12">CertIFICATE VERZI (PCSCV) 2024-2025 [lei/CV]</td> </tr> <tr> <td></td> <td>ian</td><td>feb</td><td>mar</td><td>apr</td><td>mai</td><td>iun</td><td>iul</td><td>aug</td><td>sep</td><td>oct</td><td>nov</td><td>dec</td> </tr> <tr> <td>ROPEX_GC_2023</td> <td>145,43</td><td>145,43</td><td>145,43</td><td>145,43</td><td>145,43</td><td>145,43</td><td>145,43</td><td>145,43</td><td>145,43</td><td>145,43</td><td>145,43</td><td>145,43</td> </tr> <tr> <td>ROPEX_GC_2024</td> <td>146,25</td><td>146,25</td><td>-</td><td>146,25</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td> </tr> </table>		Piața pentru ziua următoare - Zia de livrare 11/4/2025 [lei/MWh]													1	2	3	4	5	6	7	8	9	10	11	12	ROPEX_DAM_Base	406,80	394,87	376,10	335,46	340,63	380,15	425,89	552,18	557,48	350,00	311,46	56,19	1,38	ROPEX_DAM_Peak	270,62	13	14	15	16	17	18	19	20	21	22	23	24	ROPEX_DAM_Off_Peak	542,97	0,01	0,01	0,01	0,04	234,22	472,86	750,12	1.071,16	1.026,91	852,30	726,05	547,60		Piața la termen 2023-2025 [lei/MWh]													ian	feb	mar	apr	mai	iun	iul	aug	sep	oct	nov	dec	ROPEX_FM_2023	889,15	973,66	977,64	956,10	896,09	860,08	860,14	848,39	846,99	848,07	851,48	850,40	851,32	ROPEX_FM_2024	498,90	570,29	566,27	471,77	473,65	459,20	465,66	486,90	497,59	497,97	510,17	511,08	512,15	ROPEX_FM_2025	517,76	526,85	526,01	519,46	505,10	505,91	505,53	520,78	519,46	519,38	521,82	521,61	521,82		CertIFICATE VERZI (PCSCV) 2024-2025 [lei/CV]													ian	feb	mar	apr	mai	iun	iul	aug	sep	oct	nov	dec	ROPEX_GC_2023	145,43	145,43	145,43	145,43	145,43	145,43	145,43	145,43	145,43	145,43	145,43	145,43	ROPEX_GC_2024	146,25	146,25	-	146,25	-	-	-	-	-	-	-	-	<p>60 EUR/MWh Price for 5-years average-PPA (Public Purchase Agreement)</p>	<p>Opcom Anunțuri</p> <ul style="list-style-type: none"> 11/03/2025 OPCOM - SELECȚIE DIRECTOR GENERAL A fost publicat: Anunțul de selecție pentru poziția de Director General al Societății Operatorul Pieței de Energie Electrică și de Gaze Naturale „OPCOM” S.A. 01/04/2025 ANUNȚ CONSULTARE PROFIL CA A fost publicat: Anunțul privind Proiectul Componentei integrale a Planului de selecție pentru desemnarea membrilor în Consiliul de administrație al Societății Operatorul Pieței de Energie Electrică și de Gaze Naturale „OPCOM” S.A. 10/04/2025 A fost publicată lista operatorilor economici care nu au îndeplinit obligația de achiziție de CV pentru anul 2024 03/04/2025
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<p>Raport de piață Săptămânal / Lunar / Anual</p> <p>Rapoarte de analiză a pieței</p> <p>Progresul integrării pieței angro de energie electrică UE – Raport de monitorizare a pieței 2024</p> <p>Documente REMIT - ACER</p> <p>Documente REMIT - OPCOM</p> <p>Cuplarea prin Preț a Regiunilor</p>	<p>Rezultate PZU 11.04.2025</p> <table border="1"> <tr> <td>Base</td> <td>Peak</td> <td>Off-Peak</td> </tr> <tr> <td>ROPEX_DAM 406,80</td> <td>270,62</td> <td>542,97</td> </tr> <tr> <td>Volum [MWh] 49.119,7</td> <td>24.187,4</td> <td>24.932,3</td> </tr> </table>	Base	Peak	Off-Peak	ROPEX_DAM 406,80	270,62	542,97	Volum [MWh] 49.119,7	24.187,4	24.932,3	<p>Rezultate cuplare: 11.04.2025</p> <p>Day-Ahead (SDAC)</p> <p>Intra-Day (SIDC CT/IDA)</p>	<p>Opcom Comunicate de presă</p> <ul style="list-style-type: none"> 07/04/2025 Participanți noi luna martie 01/04/2025 Teste cu participanții pentru introducerea granțurilor de 15 minute în cadrul SDAC sunt programate să înceapă în ziua de 7 aprilie 2025 19/03/2025 Integrarea granțurilor României în Licitațiile Intrazilnice (IDA) 																					
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Technical description of the storage facility

- (Battery container)



- Transformation unit - (MV SKID)





Economic Data Storage Facility

1. Investment cost

	Storage Capacity 100 MWh	
Investment Cost	EUR	20,000,000.00

2. Income

For a storage facility, there are several opportunities through which the electricity storage capacity can be used, including:

- Balancing market:
Revenues: 800-1000 €/MWh;
Charge/discharge cycles per day: ~ 0.2;
- DAM Arbitrage (Day-After Market):
Revenues: ~€100/MWh;
Charge/discharge cycles per day: ~ 1;
- IDM Arbitrage (Intra-Day Market):
Revenues: ~ 200 €/MWh;
Charge/discharge cycles per day: ~ 0.5-1;

For a combined scenario of using the storage facility, the following calculation will result, per MWh:

Combined scenario usage per MWh of storage			
	Cycles per day	Price [€/MWh]	Daily income [€]
Balancing market arbitrage	0.15	830	124.5
DAM arbitrage	0.8	105	84
IDM Arbitrage	0.8	169	135.2
Total			343.7



Revenues produced by the storage facility

Year		1	2	3	4	5	6	7	8	9	10
100.00 MWh 2.75 Cycles Charging/discharging	Income	EUR 12,373,200.00	EUR 12,125,736.00	EUR 11,878,272.00	EUR 11,630,808.00	EUR 11,383,344.00	EUR 11,135,880.00	EUR 10,670,647.68	EUR 10,640,952.00	EUR 10,393,488.00	EUR 10,146,024.00
	Operational Cost	EUR 866,124.00	EUR 848,801.52	EUR 831,479.04	EUR 814,156.56	EUR 796,834.08	EUR 779,511.60	EUR 746,945.34	EUR 744,866.64	EUR 727,544.16	EUR 710,221.68
	Profit	EUR 11,507,076.00	EUR 11,276,934.48	EUR 11,046,792.96	EUR 10,816,651.44	EUR 10,586,509.92	EUR 10,356,368.40	EUR 9,923,702.34	EUR 9,896,085.36	EUR 9,665,943.84	EUR 9,435,802.32

Cashflow

Year	1	2	3	4	5	6	7	8	9	10
100.00 MWh 2.75 Cycles Charging/discharging	-8,492,924.00 €	2,784,010.48 €	13,830,803.44 €	24,647,454.88 €	35,233,964.80 €	45,590,333.20 €	55,514,035.54 €	65,410,120.90 €	75,076,064.74 €	84,511,867.06 €

