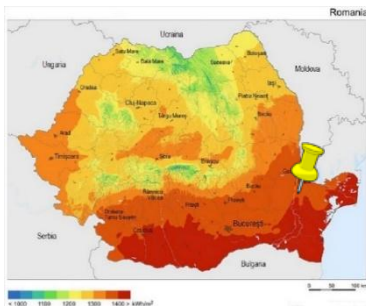




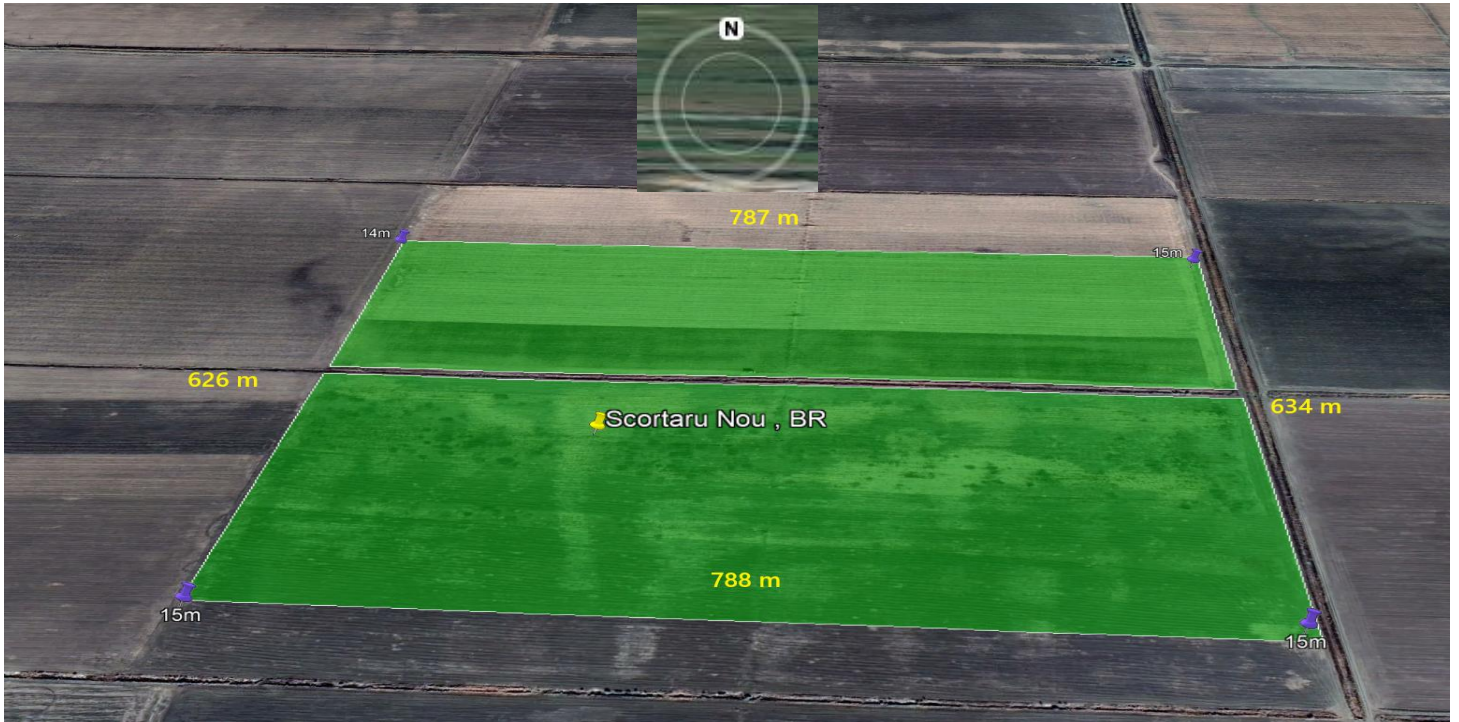
PV Park + BESS

Project: Scortaru Nou 2, BR
Land Surface: 50 Ha
Installed PV Power: 45 MWp
BESS - Storage Capacity: 180 MWh

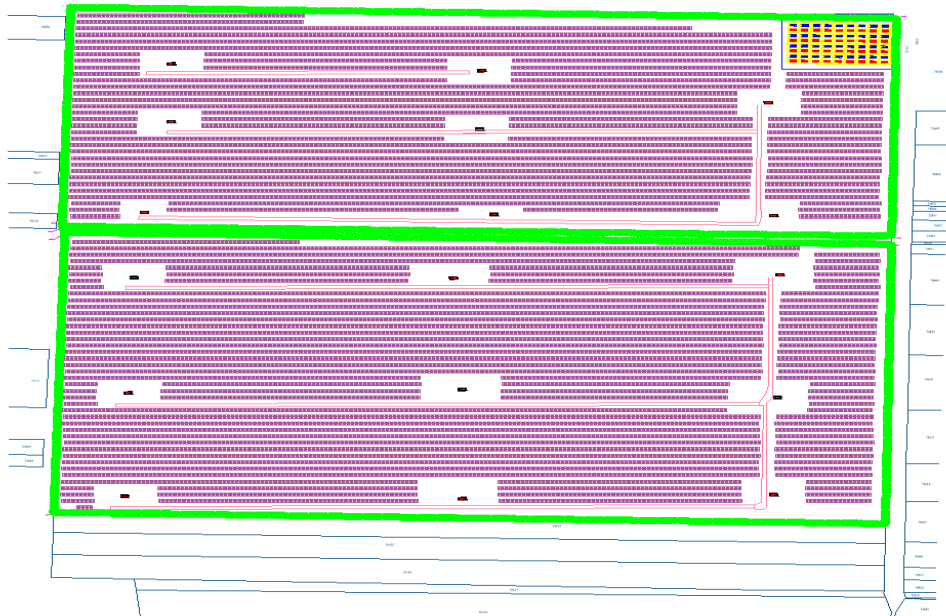




Curves Level



Photovoltaic Park + Storage Capacity Layout





PV Productions

Peak power: 45 MWp

Module surface: 211,449.7 m²

Total number of modules: 81818

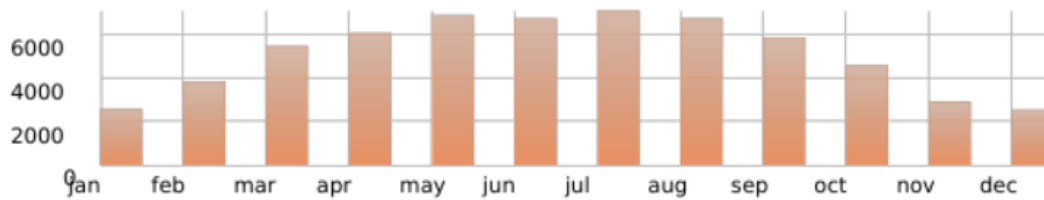
Total number of inverters: 405

Average values:

Annual production (DC) : 65,325 MWh

Annual production (AC) : 61,356 MWh

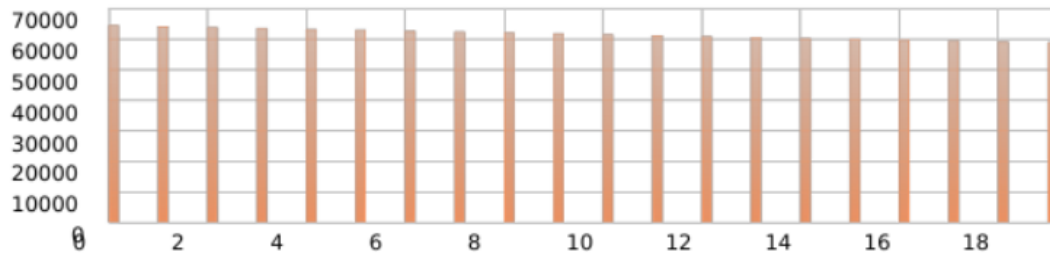
Monthly AC production (MWh/month):



Months	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec
MWh	2,562	3,825	5,483	6,075	6,901	6,763	7,113	6,767	5,870	4,579	2,897	2,521



AC production year by year (MWh):



Years	1	2	3	4	5	6	7	8	9	10
MWh	64,196	63,889	63,584	63,279	62,976	62,674	62,373	62,074	61,776	61,479

Years	11	12	13	14	15	16	17	18	19	20
MWh	61,184	60,891	60,599	60,308	60,018	59,729	59,440	59,152	58,866	58,580

EMISSIONS AVOIDED: 24,541 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 2, Braila	
PV Installed Capacity	45.00	MWp
Annual energy production AC/MWp	1,398	MWh/Mwp/year
Annual PV pannel degradation	0.5%	p.a.
Installed Storage Capacity	180	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)	36,000,000	€
Cost PV park	550,000	€/MWp
Cost PV park	24,750,000	€
TOTAL COST PV park + Storage	60,750,000	€
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	18,225,000	€
Loan Amount	42,525,000	€
Leverage	70%	%
VAT credit line (19% of CAPEX hard cost)	11,542,500	€
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	35,172,463	€
Payback period	4	years



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Contracte pentru Diferență (CFD) »

Anunțuri - Știri »

Compania »

Guvernanță Corporativă »

Important pentru prosumatori
Prețul mediu ponderat pe PZU pentru
martie 2025:

EU IPO	ROPEX_DAM_H												
	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

EU IPO	ROPEX_FM_M												
	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

EU IPO	ROPEX_GC_M											
	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	-	-	-	-	-	-	-	-

EU IPO	ROPEX_GC_M											
	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	-	-	-	-	-	-	-	-

EU IPO	ROPEX_GC_M											
	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	-	-	-	-	-	-	-	-

EU IPO	ROPEX_GC_M											
	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	-	-	-	-	-	-	-	-

EU IPO	ROPEX_GC_M											
	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	-	-	-	-	-	-	-	-

Opcom Anunțuri

- 11/03/2025
OPCOM - SELECȚIE DIRECTOR GENERAL
A fost publicat: **Anunțul de selecție pentru poziția de Director General al Societății Operatorului 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 Operatorului 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

Raport de piață
Săptămânal / Lunar / Anual

Rapoarte de analiză a pieței

Progresul integrării pieței angro de energie electrică UE – Raport de monitorizare a pieței 2024

Documente REMIT - ACER

Documente REMIT - OPCOM

Cuplarea prin Preț a Regiunilor

Rezultate PCSCV

Rezultate PZU 11.04.2025



	Base	Peak	Off-Peak
ROPEX_DAM	406,80	270,62	542,97
Volum [MWh]	49.119,7	24.187,4	24.932,3

Rezultate la termen: 11.04.2025

Day-Ahead (SDAC)
Intra-Day (SIDC CT/IDA)



Rezultate PC-OTC



	Livrare	mai 25	iun 25	iul 25
Pret [lei/MWh]	509,34	512,01	541,31	541,31
Volum [MWh]	364.068	348.720	415.504	415.504

Rezultate PCCB & PCE-ESRE-CV



	Livrare	mai 25	iun 25	iul 25
Pret [lei/MWh]	495,11	493,62	501,06	501,06
Volume [MWh]	1.304.176	1.231.402	1.138.959	1.138.959

Opcom Comunicate de presă

- 07/04/2025
Participanții noi luna martie
- 01/04/2025
Testele cu participanții pentru introducerea granularității de 15 minute în cadrul SDAC sunt programate să înceapă în ziua de 7 aprilie 2025
- 19/03/2025
Integrarea granțelor României în Licitațiile Intraziilnice (IDA)

Știri

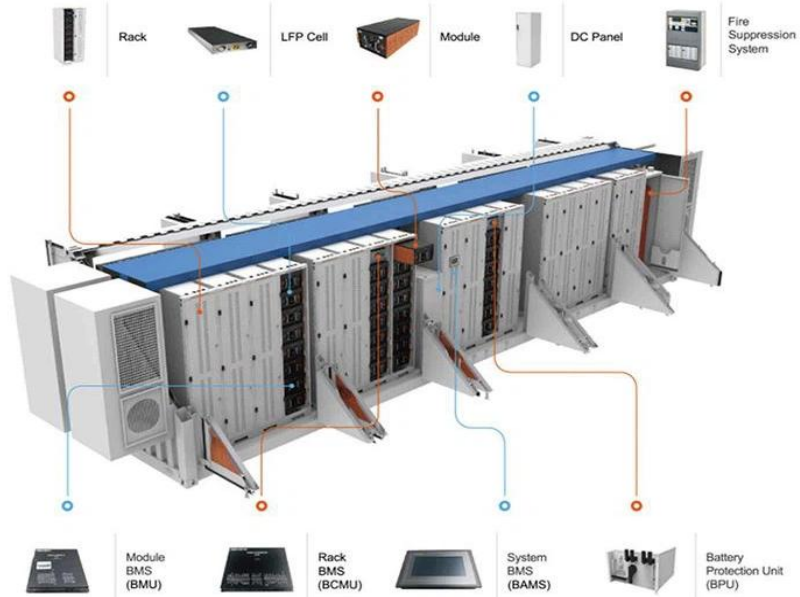
- 24/03/2025
Energynomics: Maria De Melo (BERD) consideră piața de energie regenerabilă din România drept un model pentru Europa
- 10/03/2022
Reacția Europex la "COMUNICAREA COMISIEI CĂTRE PARLAMENTUL EUROPEAN, CONSILIUL EUROPEAN, CONSILIUL COMITETUL EUROPEAN DE ENERGIE"

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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 180 MWh	
Investment Cost	EUR	36,000,000.00

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
180.00 MWh 2.75 Cycles Charging/discharging	Income	EUR 22,271,760.00	EUR 21,826,324.80	EUR 21,380,889.60	EUR 20,935,454.40	EUR 20,490,019.20	EUR 20,044,584.00	EUR 19,207,165.82	EUR 19,153,713.60	EUR 18,708,278.40	EUR 18,262,843.20
	Operational Cost	EUR 1,559,023.20	EUR 1,527,842.74	EUR 1,496,662.27	EUR 1,465,481.81	EUR 1,434,301.34	EUR 1,403,120.88	EUR 1,344,501.61	EUR 1,340,759.95	EUR 1,309,579.49	EUR 1,278,399.02
	Profit	EUR 20,712,736.80	EUR 20,298,482.06	EUR 19,884,227.33	EUR 19,469,972.59	EUR 19,055,717.86	EUR 18,641,463.12	EUR 17,862,664.22	EUR 17,812,953.65	EUR 17,398,698.91	EUR 16,984,444.18

Cashflow

Year	1	2	3	4	5	6	7	8	9	10
180.00 MWh 2.75 Cycles Charging/discharging	-15,287,263.20 €	5,011,218.86 €	24,895,446.19 €	44,365,418.78 €	63,421,136.64 €	82,062,599.76 €	99,925,263.98 €	117,738,217.62 €	135,136,916.54 €	152,121,360.71 €

