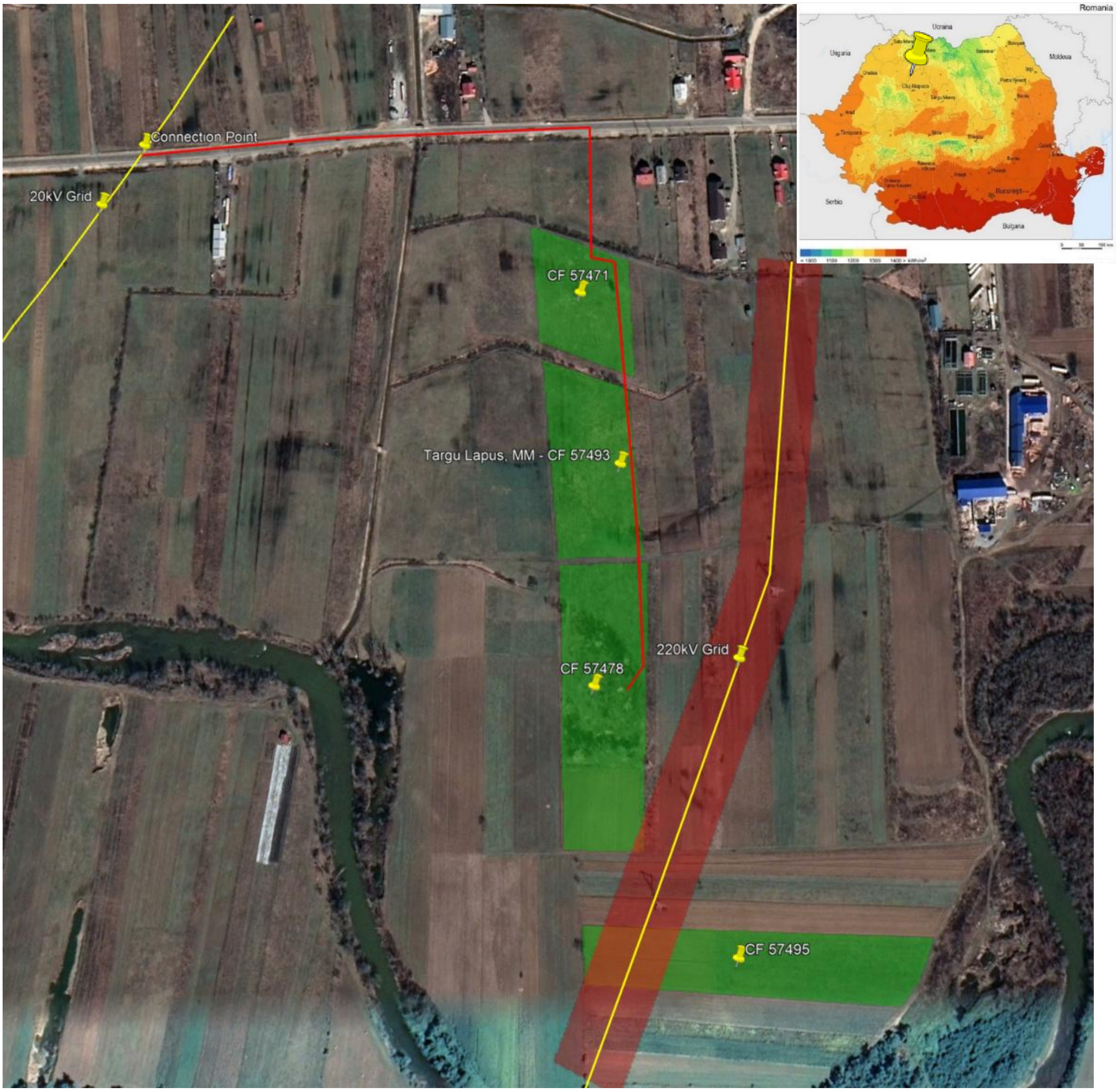
PV Park + BESS

Project: Targu Lapus, MM
Land Surface: 5.74 Ha
Installed PV Power: 4.042 MWp
BESS - Storage Capacity: 10.03 MWh



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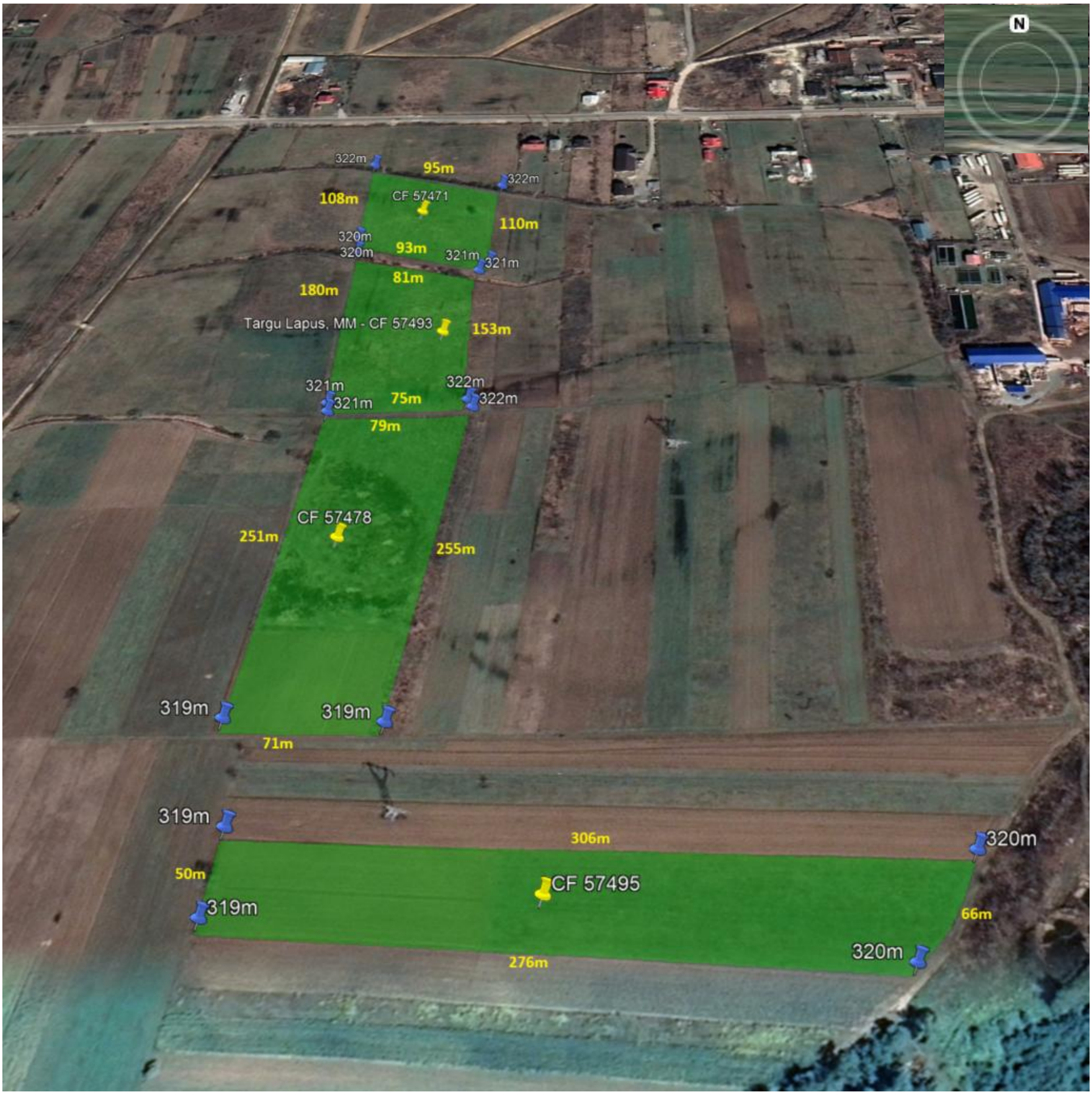
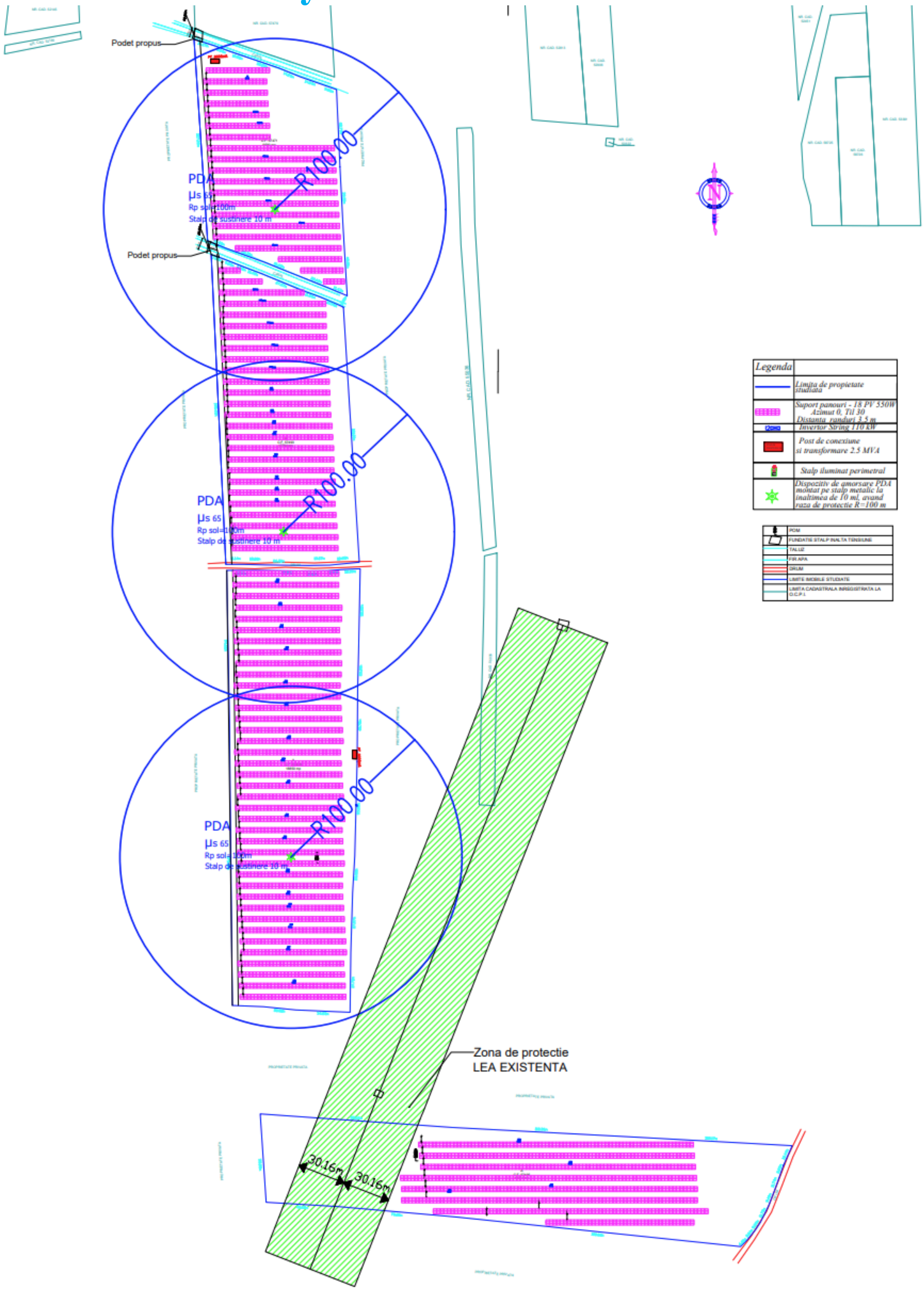
Curves Level



Layout Photovoltaic Park



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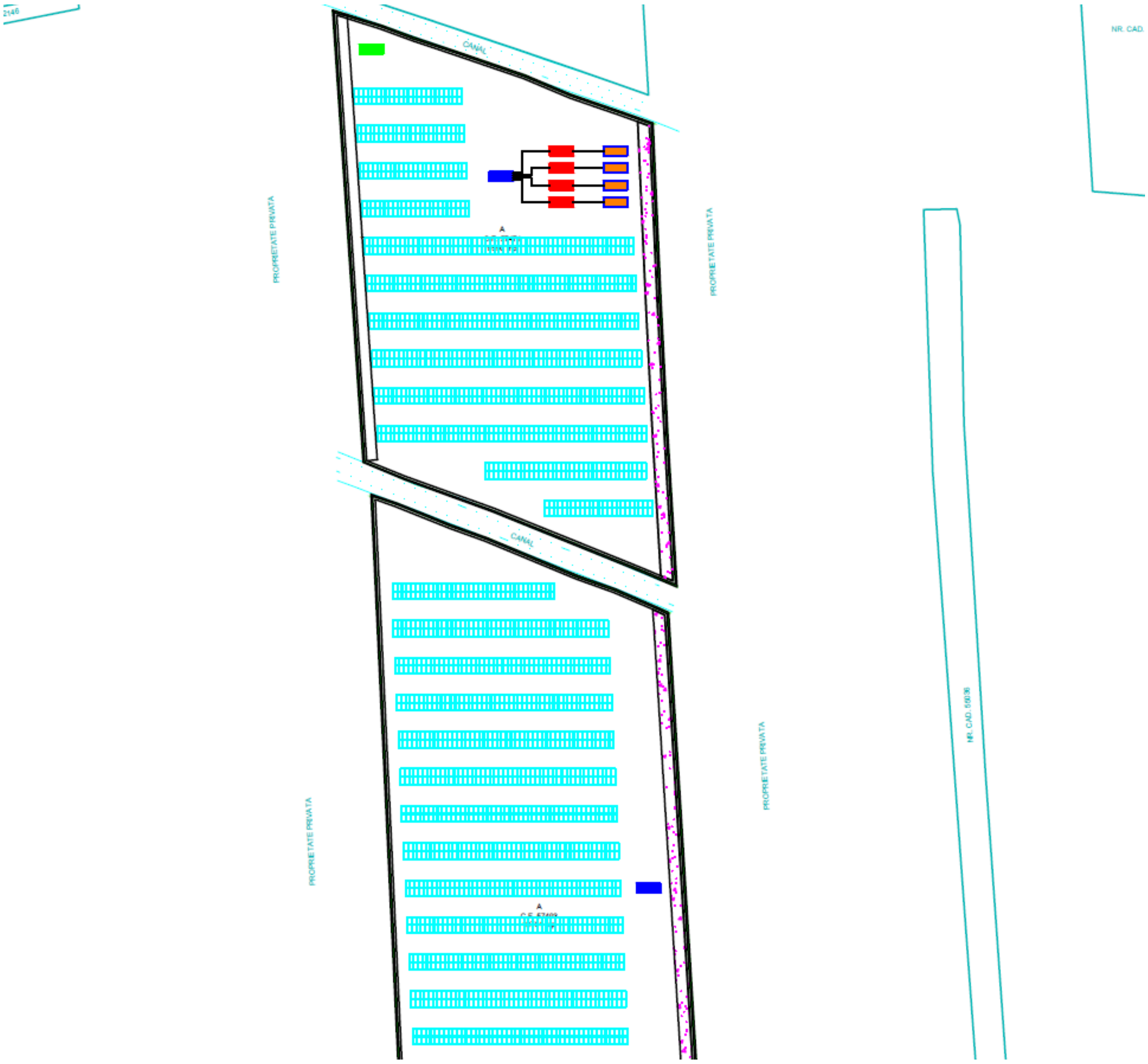
Layout BESS



PV Productions

Peak power: 4.04 MWp

Module surface: 16 542.1 m²

Total number of modules: 6 124

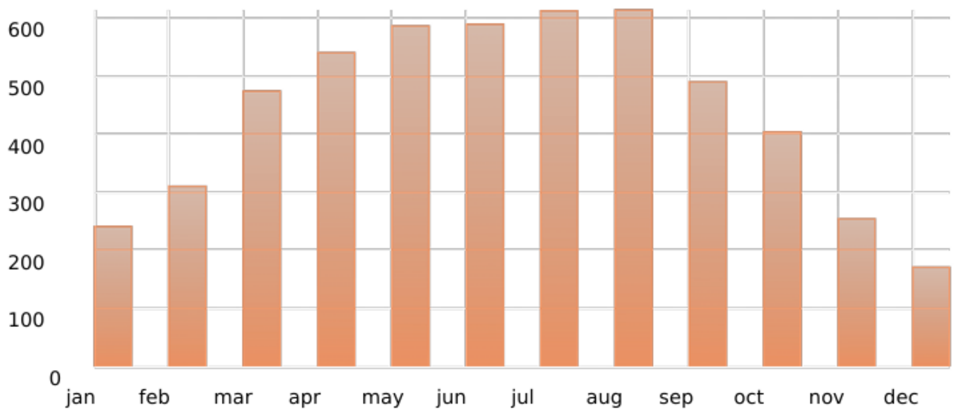
Total number of inverters: 35

Average values:

Annual production (DC) : 5 627 MWh

Annual production (AC) : 5 285 MWh

Monthly AC production (MWh/month):



Months	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec
MWh	241	310	474	541	586	589	612	614	490	403	254	171

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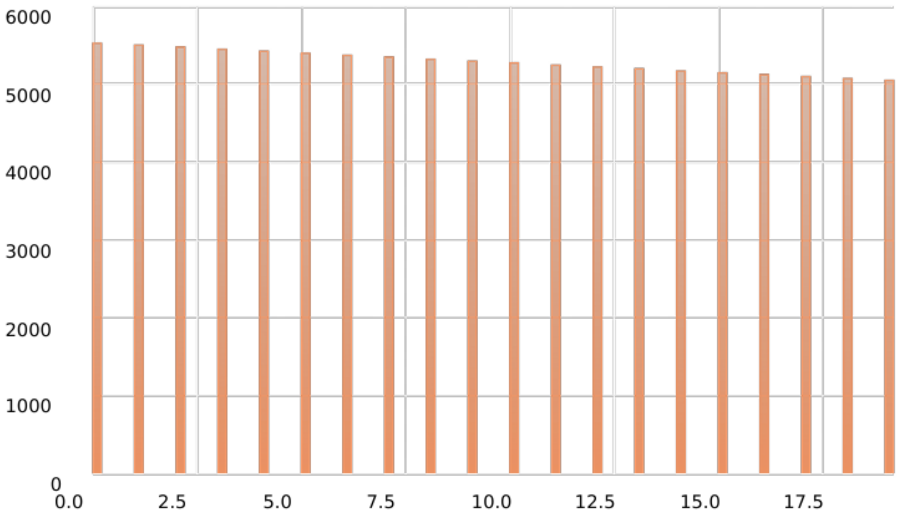
AC production year by year (MWh):



Years	1	2	3	4	5	6	7	8	9	10
MWh	5 527	5 501	5 475	5 449	5 423	5 397	5 372	5 346	5 321	5 295

Years	11	12	13	14	15	16	17	18	19	20
MWh	5 270	5 245	5 220	5 195	5 171	5 146	5 121	5 097	5 072	5 048

EMISSIONS AVOIDED: 2 114 CO_2 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 CO_2/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.

Costs:

Investment: 1.819 million EUR

Inverter renewal: 244 472 EUR

Maintenance: 1.00 %

Bank loan:

Amount: 1 818 900 EUR

Interest rate: 3.50 %

Discounting:

Inflation rate: 2.00 %

Equity rate: 3.00 %

Project type:

Total sale

Energy sales price produced:

0.0700 EUR/kWh

Price evolution:

+ 0.5 %/year

Economic results:

Annual revenue: 388 375 EUR/year

Cumulated revenues: 7.768 million EUR

Maintenance cost: 22 539 EUR/year

LCOE: 0.026 EUR/kWh

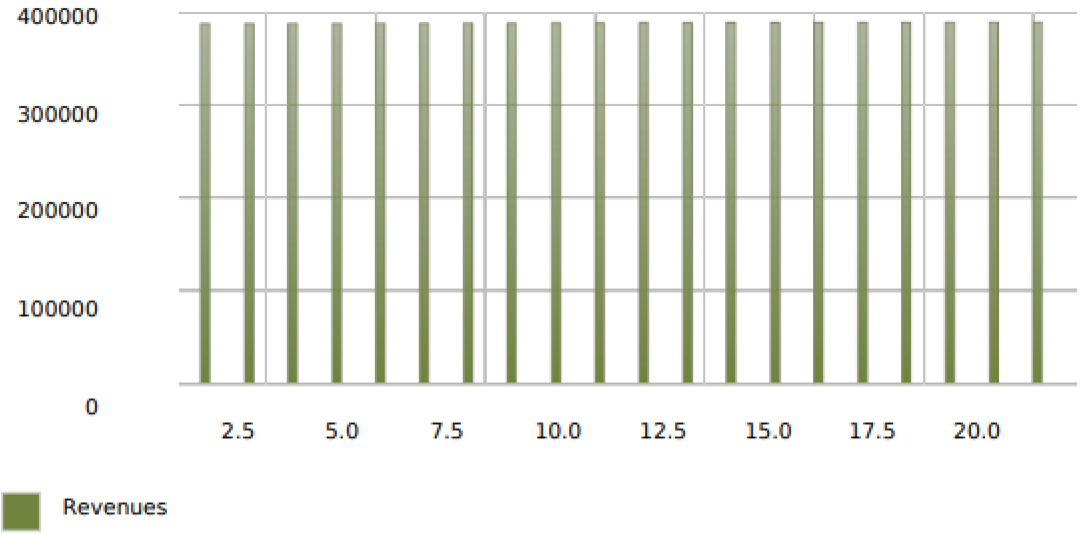
Net present value: 3.219 million EUR

Payback period: 5 year(s)

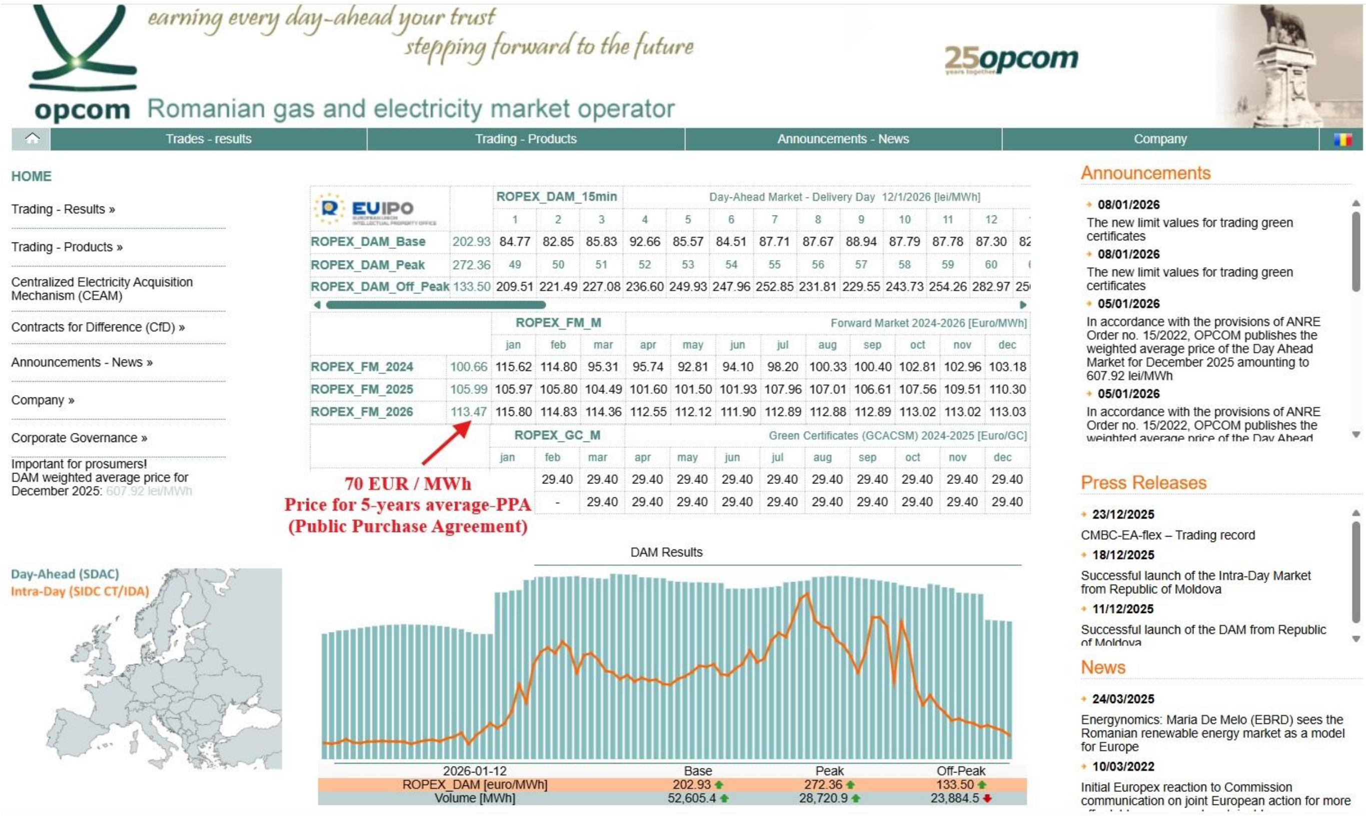
Discounted payback period: 6 year(s)

Internal rate of return: 19.30 %

Revenues year by year (EUR):



**According to www.opcom.ro



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Important for prosumers!
DAM weighted average price for December 2025: 607.92 lei/MWh

EUIPO		ROPEX_DAM_15min	Day-Ahead Market - Delivery Day 12/1/2026 [lei/MWh]										
		1	2	3	4	5	6	7	8	9	10	11	12
ROPEX_DAM_Base	202.93	84.77	82.85	85.83	92.66	85.57	84.51	87.71	87.67	88.94	87.79	87.78	87.30
ROPEX_DAM_Peak	272.36	49	50	51	52	53	54	55	56	57	58	59	60
ROPEX_DAM_Off_Peak	133.50	209.51	221.49	227.08	236.60	249.93	247.96	252.85	231.81	229.55	243.73	254.26	282.97

		ROPEX_FM_M	Forward Market 2024-2026 [Euro/MWh]										
		jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
ROPEX_FM_2024	100.66	115.62	114.80	95.31	95.74	92.81	94.10	98.20	100.33	100.40	102.81	102.96	103.18
ROPEX_FM_2025	105.99	105.97	105.80	104.49	101.60	101.50	101.93	107.96	107.01	106.61	107.56	109.51	110.30
ROPEX_FM_2026	113.47	115.80	114.83	114.36	112.55	112.12	111.90	112.89	112.88	112.89	113.02	113.02	113.03

ROPEX_GC_M	Green Certificates (GCACSM) 2024-2025 [Euro/GC]										
jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40
-	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40

70 EUR / MWh
Price for 5-years average-PPA
(Public Purchase Agreement)

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

DAM Results

2026-01-12	Base	Peak	Off-Peak
ROPEX_DAM [euro/MWh]	202.93	272.36	133.50
Volume [MWh]	52,605.4	28,720.9	23,884.5

Announcements

- 08/01/2026
  The new limit values for trading green certificates
- 08/01/2026
  The new limit values for trading green certificates
- 05/01/2026
  In accordance with the provisions of ANRE Order no. 15/2022, OPCOM publishes the weighted average price of the Day Ahead Market for December 2025 amounting to 607.92 lei/MWh
- 05/01/2026
  In accordance with the provisions of ANRE Order no. 15/2022, OPCOM publishes the weighted average price of the Day Ahead

Press Releases

- 23/12/2025
  CMBC-EA-flex – Trading record
- 18/12/2025
  Successful launch of the Intra-Day Market from Republic of Moldova
- 11/12/2025
  Successful launch of the DAM from Republic of Moldova

News

- 24/03/2025
  Energynomics: Maria De Melo (EBRD) sees the Romanian renewable energy market as a model for Europe
- 10/03/2022
  Initial Europex reaction to Commission communication on joint European action for more

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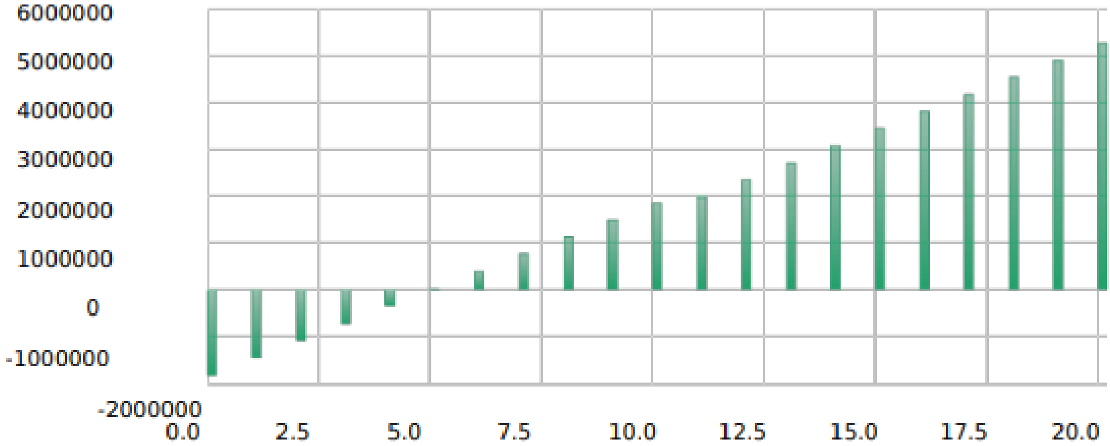
Estimated results

Year	1	2	3	4	5	6	7	8	9	10
Production (kWh)	5 508 480	5 482 404	5 456 442	5 430 601	5 404 873	5 379 259	5 353 761	5 328 384	5 303 127	5 277 989
Selling										
Prices (EUR/kWh)	0.0704	0.0707	0.0711	0.0714	0.0718	0.0721	0.0725	0.0728	0.0732	0.0736
Sales revenue (EUR)	387 521.5	387 615.6	387 708.9	387 802.1	387 894.7	387 986.7	388 078.4	388 170.1	388 261.8	388 353.4
Total (EUR)										
Revenues	**387 521.5**	**387 615.6**	**387 708.9**	**387 802.1**	**387 894.7**	**387 986.7**	**388 078.4**	**388 170.1**	**388 261.8**	**388 353.4**
Maintenance	18 552.8	18 923.8	19 302.3	19 688.4	20 082.1	20 483.8	20 893.4	21 311.3	21 737.5	22 172.3
Inverter renewal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Results	**368 968.8**	**368 691.7**	**368 406.6**	**368 113.7**	**367 812.5**	**367 502.9**	**367 184.9**	**366 858.8**	**366 524.2**	**366 181.2**

Year	11	12	13	14	15	16	17	18	19	20
Production (kWh)	5 252 971	5 228 054	5 203 178	5 178 362	5 153 654	5 129 065	5 104 591	5 080 183	5 055 763	5 031 266
Selling										
Prices (EUR/kWh)	0.0739	0.0743	0.0747	0.0751	0.0754	0.0758	0.0762	0.0766	0.0770	0.0773
Sales revenue (EUR)	388 445.2	388 535.6	388 620.3	388 700.7	388 780.2	388 859.9	388 939.5	389 015.2	389 080.9	389 131.6
Total (EUR)										
Revenues	**388 445.2**	**388 535.6**	**388 620.3**	**388 700.7**	**388 780.2**	**388 859.9**	**388 939.5**	**389 015.2**	**389 080.9**	**389 131.6**
Maintenance	22 615.7	23 068.1	23 529.4	24 000.0	24 480.0	24 969.6	25 469.0	25 978.4	26 497.9	27 027.9
Inverter renewal	244 471.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Results	**121 357.9**	**365 467.6**	**365 090.9**	**364 700.7**	**364 300.2**	**363 890.3**	**363 470.5**	**363 036.8**	**362 583.0**	**362 103.7**

Cash flow illustration (EUR):

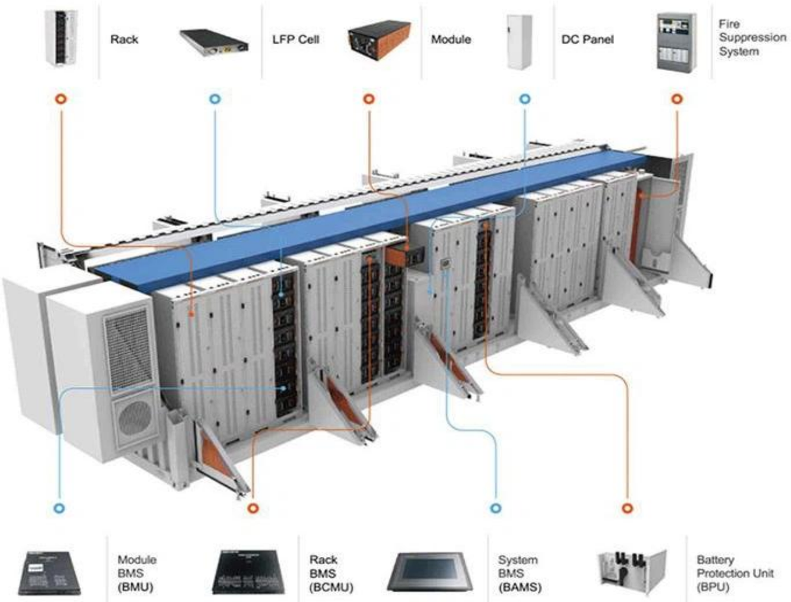


Years	1	2	3	4	5	6	7	8	9	10
EUR	-1 449 931	-1 081 239	-712 832	-344 718	23 095	390 598	757 783	1 124 642	1 491 166	1 857 347

Years	11	12	13	14	15	16	17	18	19	20
EUR	1 978 705	2 344 173	2 709 264	3 073 965	3 438 265	3 802 155	4 165 625	4 528 662	4 891 245	5 253 349

Technical description of the storage facility

- **(Battery container)**



- **Transformation unit - (MV SKID)**

Economic Data Storage Facility

1. Investment cost

	Storage Capacity 10 MWh	
Investment	EUR	2.000.000,00

2. Income

For an energy storage facility, there are several opportunities to utilize its electricity storage capacity, including:

- Balancing Market:
  - Revenues: €800–1,000/MWh
  - Charge/discharge cycles per day: ~0.2
- Day-Ahead Market (DAM) Arbitrage:
  - Revenues: ~€100/MWh
  - Charge/discharge cycles per day: ~1
- Intra-Day Market (IDM) Arbitrage:
  - Revenues: ~€200/MWh
  - Charge/discharge cycles per day: ~0.5–1
- Peak Production Curtailment Reduction:
  - Revenues: ~€100/MWh
  - Charge/discharge cycles per day: ~0.3–0.5
- Imbalance Compensation:
  - Revenues: ~€65/MWh
  - Charge/discharge cycles per day: ~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	0,2	600	120
DAM arbitrage	0,7	100	70
IDM Arbitrage	0,75	132	99
Reduction of peak production losses	0,3	80	24
Imbalance compensation	0,8	64	51,2
Total			**364,2**

Revenues produced by the storage facility

Year		1	2	3	4	5	6	7	8	9	10
10MWh 2.75 Cycles Charge/Discharge	Income	EUR 1.311.120,00	EUR 1.284.897,60	EUR 1.258.675,20	EUR 1.232.452,80	EUR 1.206.230,40	EUR 1.180.008,00	EUR 1.130.709,89	EUR 1.127.563,20	EUR 1.101.340,80	EUR 1.075.118,40
	Operational costs	EUR 91.778,40	EUR 89.942,83	EUR 88.107,26	EUR 86.271,70	EUR 84.436,13	EUR 82.600,56	EUR 79.149,69	EUR 78.929,42	EUR 77.093,86	EUR 75.258,29
	Profits	**EUR 1.219.341,60**	**EUR 1.194.954,77**	**EUR 1.170.567,94**	**EUR 1.146.181,10**	**EUR 1.121.794,27**	**EUR 1.097.407,44**	**EUR 1.051.560,20**	**EUR 1.048.633,78**	**EUR 1.024.246,94**	**EUR 999.860,11**

Cashflow

An	1	2	3	4	5	6	7	8	9	10
10 MWh 2.75 Cycles Charging/Discharging	-780.658,40 €	414.296,37 €	1.584.864,30 €	2.731.045,41 €	3.852.839,68 €	4.950.247,12 €	6.001.807,32 €	7.050.441,09 €	8.074.688,04 €	9.074.548,15 €

Economics PV + BESS

Project assumptions		
Project name	Targu Lapus, MM	
PV Installed Capacity	4,042	MWp
Annual energy production AC/MWp	1.398	MWh/Mwp/year
Annual PV pannel degradation	0,5%	p.a.
Installed Storage Capacity	8	MWh
Charge-Discharge Battery cycles/days	2	hours
Annual BESS degradation	3%	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 PV park per MWp	595.000	€/MWp
Cost Storage Batteries (BESS)	1.600.000	€
Cost PV park	2.404.990	€
Customer-Side Works T_u	500	€
Grid Connection Installations T_r	34.324	€
Grid Reinforcement T_i specific	-	€
Grid Connection Route	38.000	€
TOTAL COST PV park + Storage	4.077.814	€
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
Utlities (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	1.223.344	€
Loan Amount	2.854.470	€
Leverage	70%	%
VAT credit line (21% of CAPEX hard cost)	856.341	€
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	16%	%
IRR equity	41%	%
NPV project	1.119.020	€
Payback period	5	years

According to the approved Engineering Solution Study, the indicative cost of grid reinforcement works (TI) is estimated at approximately 3.567€. This value will be reassessed at the commissioning stage, and experience from similar projects shows that the final reinforcement costs tend to decrease significantly.