



EMAS BUSINESS CONSULTING

YOUR STRATEGIC PARTNER
IN GREEN ENERGY PROJECTS

PV PARK + BESS

Project location :

CUZA-VODĂ, CONSTANȚA COUNTY

Energy for the future, available today.
Sustainable investment, solid returns.



15 MWp

INSTALLED CAPACITY



50 MWh

STORAGE CAPACITY



18,34 ha

LAND AREA



~21.075 MWh

ANNUAL PRODUCTION (AC)



~8.427 t CO₂

ANNUAL EMISSION AVOIDED

**A SOLID OPPORTUNITY,
READY FOR THE FUTURE**

An Integrated project for the production and storage of solar farm energy, designed to generate long-term value in a fully scalable approach.

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LOCAȚIA PROIECTULUI

CUZA-VODĂ, CONSTANȚA COUNTY, ROMÂNIA

Strategic site for an reference green energy project



PROJECT OVERVIEW :

The land identified for the PV & BESS project is located in Cuza-Vodă, Constanța County, in an area with convenient access to energy and road infrastructure.



LOCATION:

Cuza-Vodă, Constanța County



LAND AREA:

18,34 ha



DESTINATION :

PV + BESS



STORAGE CAPACITY:

50 MWh



GRID CONNECTION :

110 kV Medgidia N.-Bălcescu-Cuza Vodă OHL in-and-out connection (~1,2 km)



EXCLUSIVE ACCESS

County Road
DJ222



GRID PROXIMITY

110kV Medgidia N.-Bălcescu –
Cuza-Vodă OHL



FAVORABLE TOPOGRAPHY

Flat, arable land, ideal for a
photovoltaic power plant



LAND STATUS

Extravilan land, available
for energy development



EXCELLENT SOLAR POTENTIAL

High annual solar irradiation

INVEST IN THE FUTURE OF ENERGY

SOLAR PARK + BATTERY ENERGY STORAGE SYSTEM (BESS)

CUZA-VODĂ, CONSTANȚA COUNTY

An integrated renewable energy project that combines solar power generation with intelligent energy storage to maximize value and support Romania's energy transition.



CLEAN ENERGY



SMART STORAGE



ATTRACTIVE RETURNS



HIGHLIGHTS PROJECT

INSTALLED CAPACITY
15 MWp



STORAGE CAPACITY
50 MWh / 4h



LAND AREA
18,34 ha



AVERAGE ANNUAL CYCLES
2 cycles / day



CHARGING PRICE RANGE
0 ÷ 60 €/MWh



ANNUAL EMISSIONS AVOIDED
~8.427 t CO₂

ESTIMATED ANNUAL REVENUES



■ PV
~ € 0,94 mil.

■ BESS
~ € 3,13 mil.

(Combined scenario)

FINANCIAL PERFORMANCE



IRR (Project)
~15%



Simple Payback
~5 years



Discounted Payback
~6 years

TOTAL CAPEX INVESTMENT



~ € 15,6
million

PV + BESS + grid connection
EPC + contingency

BESS REVENUE STRUCTURE – MULTIPLE VALUE STREAMS



BALANCING MARKET
800 ÷ 1000 €/MWh
(Servicii de echilibrare)



DAM ARBITRAGE
~ 100 €/MWh
(Arbitraj ziua anterioara)



IDM ARBITRAGE
~ 200 €/MWh
(intraday trading)

TRANSACTION PROCESS



NDA



DETAILED
INFORMATION



DUE
DILIGENCE



INDICATIVE
OFFERS



SPA &
CLOSING

A SOLID OPPORTUNITY, BUILT FOR THE FUTURE

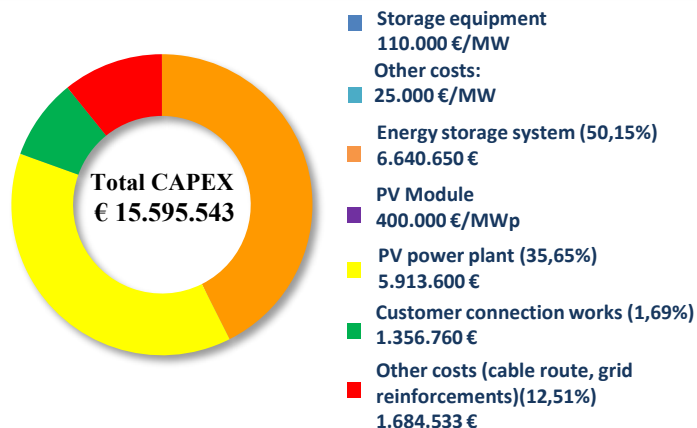
High-quality assets, attractive returns and strong growth potential in a market with long-term expansion.



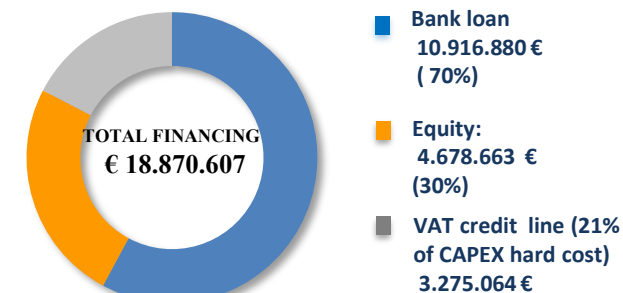
1. PROJECT ASSUMPTION

Project name	Hybrid PP,Cuza-Vodă,Constanța
Installed power	15 MWp
Annual AC production	1.426 MWh/MWp/year
PV annual degradation	0,5% p.a.
Installed storage capacity	50 MWh
Charge/discharge cycles/day:	4h
BESS degradation	3% p.a.
Energy sales price (base)	70€/MWh
Balancing market price	350€/MWh
DAM market price	90€/MWh
IDM market price	120€/MWh
Inflation	3% p.a.

2. PROJECT COSTS (CAPEX)



3. CAPITAL STRUCTURE



4. FINANCING ASSUMPTION

Equity	4.678.663 €	30%
Bank loan	10.916.880 €	70%
Loan (Leverage)	70%	
VAT credit line (21% of CAPEX)	3.275.064 €	
Loan interest rate	2,68%	
Debt margin	4,00%	
Loan maturity	10 years	
Grace period	12 months	
Loan term	108 months	
Cost of equity	30%	
Interest rate	7,20%	
Profit rate	16%	
WACC	8,60%	

5. KEY FINANCIAL INDICATORS



6. FINANCIAL SUMMARY

Annual revenue (Year 1)	4,07 mil €
Cumulative revenue (20 years)	81,35 mil €
Annual operational costs	221.923 €
Net present value (NPV)	3.561.764 €
IRR Project	15 %
IRR Equity	32 %
Payback period	6 years
Inverter/PCS replacement (Year 12)	1,38 mil €
Estimated CO ₂ emissions avoided	~8.427 t/year



**STABLE
PROJECT**



**PREDICTABLE
REVENUES**



REDUCED RISKS



**ATTRACTIVE
PROFITABILITY**



**ADDITIONAL
INVESTMENT**



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