



EMAS BUSINESS CONSULTING

YOUR STRATEGIC PARTNER
IN GREEN ENERGY PROJECTS

BESS STANDALONE

Project Location:

MEDGIDIA, CONSTANȚA COUNTY

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



100 MWh
STORAGE CAPACITY



5 ha
LAND AREA



1,5 cycles/day
ANNUAL CYCLES (AVG.)



**SUSTAINABLE
PROJECT**

A SOLID OPPORTUNITY, READY FOR THE FUTURE

Integrated energy storage project, designed to generate long-term value in a rapidly expanding market.



PROJECT LOCATION

MEDGIDIA, CONSTANȚA COUNTY, ROMÂNIA

Strategic location for an electricity energy storage project



GENERAL OVERVIEW

The site identified for the BESS project is located in Medgidia, Constanța County, in an area with easy access to both the electrical grid infrastructure and the national road network.



LOCATIE:

Medgidia, CONSTANȚA COUNTY



LAND AREA :

5 ha



STORAGE CAPACITY :

49MW/100MWh



GRID CONNECTION :

110 kV Underground Cable (UGC) Entry to the Medgidia South Substation 400/110/20 kV (350 m)



EXCLUSIVE ACCESS

County Road DN222



GRID PROXIMITY

400/110/20kV Overhead Transmission Line (OHL)



LAND STATUS

Land located outside the built-up area (extravilan), available for energy development



BESS POTENTIAL

Ideal location for utility-scale battery energy storage systems (BESS)

INVEST IN THE FUTURE OF ENERGY

BATTERY ENERGY STORAGE SYSTEM (BESS)

MEDGIDIA, CONSTANȚA COUNTY

A strategic electricity energy storage project designed to enhance grid flexibility, balance the power system, and support Romania's energy transition.



SMART STORAGE



ATTRACTIVE RETURNS

PROJECT HIGHLIGHTS



Storage Capacity
100 MWh / 2h



Land Area :
5 ha



Average Annual Cycling
1,5 cycles/day



Charging Price Range
€0 ÷ 60 /MWh

ESTIMATED ANNUAL REVENUES



■ Battery Charging
Cost ~1,67mil. €/year
(25%)
■ BESS
~ 6,54 mil. €/ year
(75%)

(Combined Scenario)

FINANCIAL PERFORMANCE



Project IRR
~15%



Simple Payback
~4 years



Payback (Discounted)
~4.5 years

TOTAL INVESTMENT-CAPEX



~ € 22,48 million

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 STRONG OPPORTUNITY, READY FOR THE FUTURE

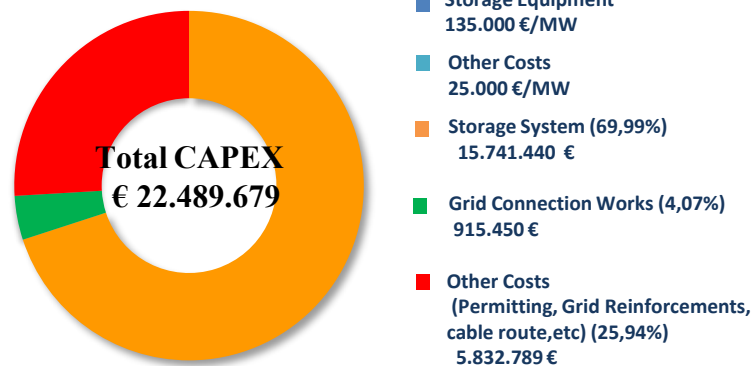
High-quality assets, attractive returns,
and significant growth potential
in a rapidly expanding market.



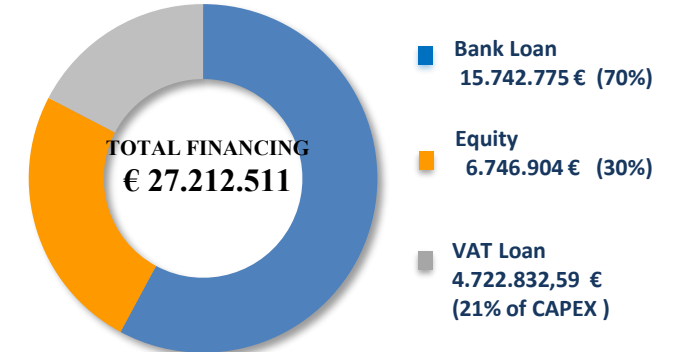
1. PROJECT ASSUMPTIONS

Project Name	BESS standalone
Location	Medgidia , CONSTANȚA
Installed Storage Capacity	100 MWh
Charging Price Range	0-60 € /MWh
Charge/Discharge Cycles/Day	2h
Annual BESS Degradation	3% p.a.
Base Electricity Purchase Price	70€/MWh
Balancing Market Price	350€/MWh
Day-Ahead Market (DAM) Price	90€/MWh
Intraday Market (IDM) Price	120€/MWh
Inflation	3% p.a.

2. PROJECT COSTS (CAPEX)



3. CAPITAL STRUCTURE



4. FINANCIAL ASSUMPTIONS

Equity	6.746.904 €	30%
Bank Loan	11.670.428 €	70%
Loan-to-Value (LTV)	70%	
VAT Loan (21% of CAPEX)	4.722.832,59 €	
Loan Interest Rate	2,68%	
Bank Margin	4,00%	
Loan Tenor	10 years	
Grace Period	12 moths	
TOTAL term	108 moths	
Equity contribution	30%	
Debt ratio	7,20%	
Profit Tax	16%	
WACC	8,60%	

5. KEY FINANCIAL INDICATORS



6. FINANCIAL SUMMARY

Annual Revenue (1 st Year)	6,54 mil €
Cumulative Revenue (20 Years)	120.800.000 €
Annual O&M Cost	490.776 €
Net Present Value (NPV)	4.579.257 €
IRR Project	15,00 %
IRR Equity	32 %
Payback Period	4 ani
Inverter Replacement (12 th Year)	1,6 mil €



Sustainable
Project



Predictable
Revenues



Reduced Risks



Attractive
Profitability



Additional Investment
Opportunities



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