



EMAS BUSINESS CONSULTING

YOUR STRATEGIC PARTNER
IN GREEN ENERGY PROJECTS

PV PARK + BESS

SALIGNY, CONSTANTA COUNTY

The energy of the future,
available today.
Sustainable investment,
solid returns.



46 MWp

INSTALLED CAPACITY



183 MWh

STORAGE CAPACITY



47,5 ha

LAND AREA



65.912 MWh

ANNUAL PRODUCTION (AC)



26.361 t CO₂

ANNUAL CO₂ SAVINGS

A SOLID OPPORTUNITY, BUILT FOR THE FUTURE

An integrated solar power generation and energy storage project, designed to create long-term value through sustainable development.

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PROJECT LOCATION

SALIGNY, CONSTANȚA COUNTY, ROMANIA

A strategic site for a landmark green energy project



GENERAL OVERVIEW

The land identified for the photovoltaic project is located in Saligny municipality, Constanța County, in an area with easy access to energy and road infrastructure.



LOCATION

Saligny, Constanța County



LAND AREA

47.5 ha



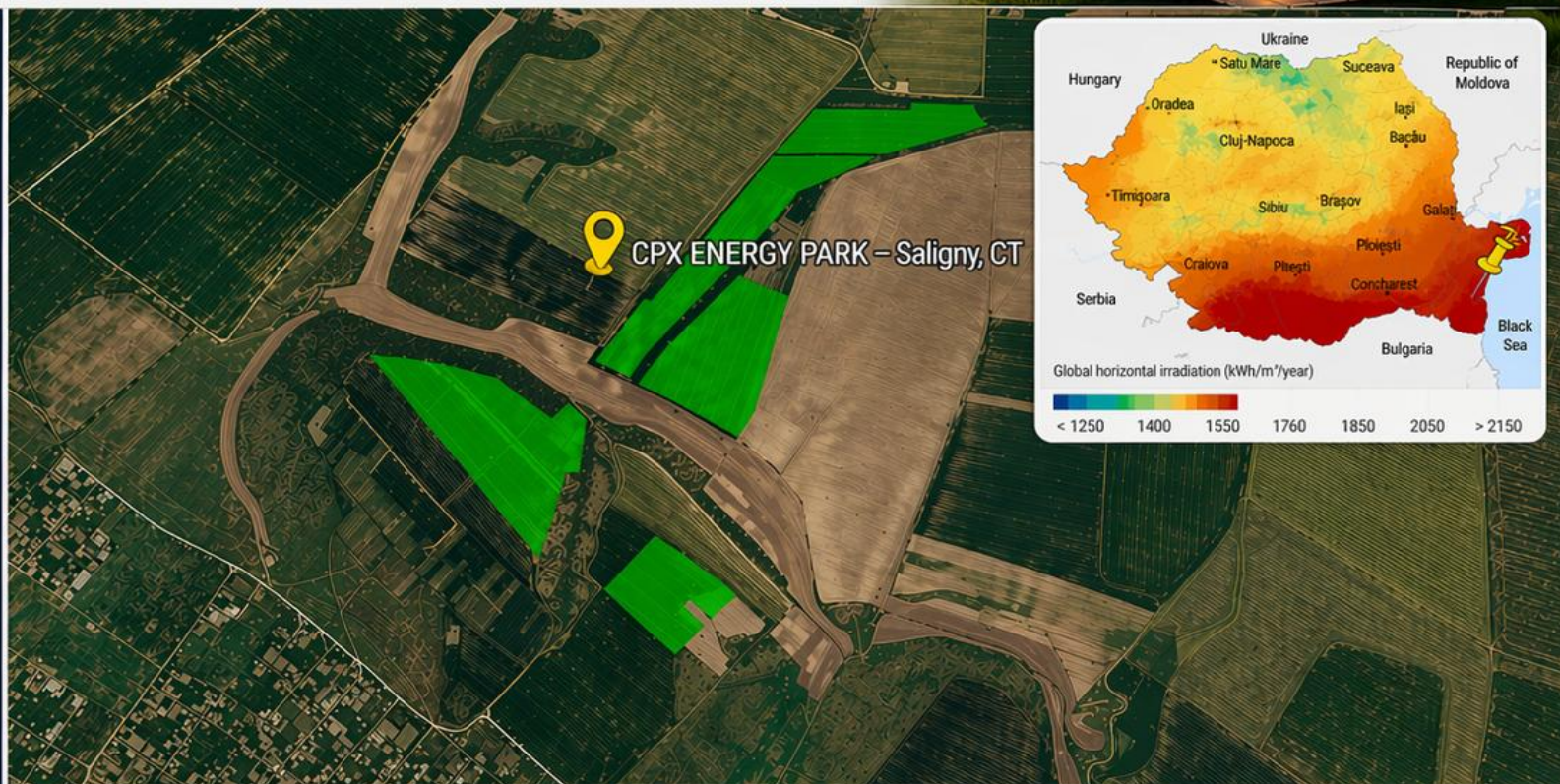
PURPOSE

Photovoltaic Park Project + BESS



GRID CONNECTION

Saligny 400/110 kV substation
(~100 m)



EASY ACCESS
to main roads



GRID PROXIMITY
400/110 kV electrical network
(~100 m)



FAVORABLE TOPOGRAPHY
arable, flat land,
ideal for PV



LAND STATUS
extravilan (outside urban area),
available for energy development



EXCELLENT SOLAR POTENTIAL
high annual irradiation in the
Dobrogea region



STRATEGIC LOCATION
in an area with high solar resource
and existing energy infrastructure



IDEAL FOR SUSTAINABLE DEVELOPMENT
supports Romania's energy transition
and ESG objectives



STRONG INVESTMENT BASE
minimizes development and
grid connection risks

INVESTMENT OPPORTUNITY – SOLAR PV PARK + BESS



Saligny, Constanța County | 46 MWp + 183 MWh



PROJECT OVERVIEW

The project involves the development of a modern solar PV park strategically located in Saligny, Constanța County, integrating electricity production with an advanced Battery Energy Storage System (BESS). The initiative addresses the growing demand for clean, flexible energy, contributing to the energy transition and strengthening energy security at national level.

The project will be developed on a land surface of **47.5 ha** and will have an installed capacity of **46 MWp**, coupled with a storage capacity of **183 MWh**.



TECHNICAL COMPONENTS

- 70,000 high-performance PV modules
- 398 latest-generation inverters
- BESS system with a storage capacity of 183 MWh
- Complete integration of PV + BESS systems for efficient and flexible operation
- Connection to the national grid via a dedicated transformer station



ACCESS TO ENERGY MARKETS

The project will actively participate in Romania's energy markets, ensuring optimal valorization of stored energy through:

- **DAM (Day-Ahead Market)** – day-ahead market
- **IDM (Intraday Market)** – intraday trading
- **Balancing Market** – balancing system energy

BESS system integration allows operational flexibility, revenue optimization, and contributes to grid stability and national energy system balancing.



ENVIRONMENTAL IMPACT

By avoiding carbon emissions, the project will generate an estimated annual reduction of **26,361 tonnes CO₂ equivalent**, having a significant positive impact on environmental protection and meeting climate objectives of Romania.



FINANCIAL HIGHLIGHTS

- Payback period: **5 years**
- Estimated total investment (CAPEX): **EUR 60,703,750**
- Integrated PV + BESS structure for maximum efficiency and optimized operational costs



INVESTMENT OPPORTUNITY

The project represents a strategic investment opportunity in a scalable, sustainable energy asset tailored to the needs of the Romanian energy market.

By combining renewable energy generation with advanced storage and access to all relevant markets (DAM, IDM, Balancing Market), this investment offers an attractive risk-return profile and strong long-term growth potential.

CAPACITY
46 MWp
+ 183 MWh BESS

LAND AREA
47.5 ha

PV MODULES
70,000

INVERTERS
398

BESS STORAGE
183 MWh

CO₂ EMISSIONS REDUCTION
26,361 tonnes CO₂ equivalent/year

INVEST IN THE FUTURE OF ENERGY!
Clean energy. Modern technology. Sustainable returns.

INVESTMENT IN THE FUTURE OF ENERGY

46 MWp SOLAR PARK + 183 MWh BESS

PUNE, CONSTANTA COUNTY

An integrated renewable energy project that combines solar power production with intelligent storage to maximize value and support the energy transition in Romania.



CLEAN
ENERGY



SMART
STORAGE



ATTRACTIVE
RETURNS

PROJECT HIGHLIGHTS



46 MWp
INSTALLED CAPACITY



183 MWh
STORAGE CAPACITY



47,5 ha
LAND AREA



65,912 MWh
ESTIMATED ANNUAL PRODUCTION (AC)



26,361 t CO₂
ANNUAL EMISSIONS AVOIDED

ESTIMATED ANNUAL REVENUES



FINANCIAL PERFORMANCE



TOTAL ESTIMATED INVESTMENT



WHY THIS PROJECT?

- ✓ Strategic location with high solar irradiation
- ✓ Diversified revenue streams (PV + BESS)
- ✓ Participation in energy markets (arbitrage & balancing)
- ✓ Aligned with ESG objectives and the energy transition

BESS REVENUE STRUCTURE – MULTIPLE VALUE STREAMS

BALANCING MARKET
€800 – €1,000 /MWh
(Balancing services)

DAM ARBITRAGE
~€100 /MWh
(Day-ahead trading)

IDM ARBITRAGE
~€200 /MWh
(Intraday trading)

TRANSACTION PROCESS



A SOLID OPPORTUNITY, BUILT FOR THE FUTURE

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

PV PARK 46 MWp + BESS 183 MWh

KEY FINANCIAL DATA OF THE PROJECT

📍 Saligny, Constanța County, Romania



46 MWp

INSTALLED CAPACITY



183 MWh

STORAGE CAPACITY



1.427

MWh/MWp/year
SPECIFIC PRODUCTION



15,00%

PROJECT IRR



€15.916 million

NET PRESENT VALUE
(NPV)



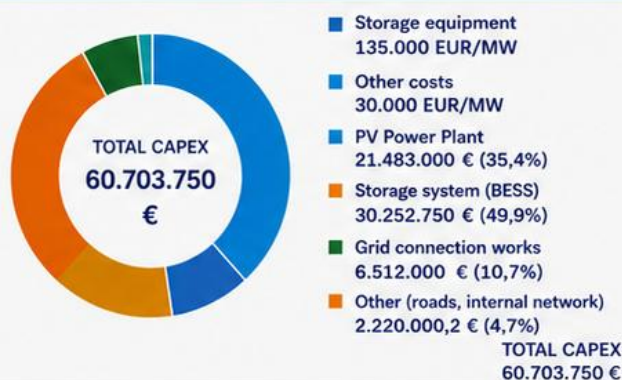
6 YEARS

PAYBACK PERIOD

1. PROJECT OVERVIEW

Project name	Saligny, CT
PV Installed Capacity	46 MWp
Annual AC Energy Production	1.427 MWh/MWp/year
PV Performance Ratio	0,55% p.a.
Storage Capacity Installed	183 MWh
Charging/Discharging Cycles per Day	4 h
Annual BESS Degradation	3% p.a.
Energy Price (base case)	70 €/MWh
Balancing Market Price (BESS)	350 €/MWh
DAM Price	90 €/MWh
IDM Price	120 €/MWh
Inflation	3% p.a.

2. PROJECT COSTS (CAPEX)



3. OPERATIONAL COSTS (OPEX)

Land lease	2.500 €/ha/year
Insurance	1.500 €/MWp/year
Operation & Maintenance	3.500 €/MWp/year
Balancing & forecasting	750 €/MWp/year
Accounting, taxes, fees	65.000 €/year
Utilities (energy & water)	1.000 €/MWp/year
Contingency	3% p.a.
Security	1.000 €/MWp/year
Land & construction tax	5.000 €/year
Depreciable assets	60.703.750 €
Depreciation period	10 years
Annual depreciation	6.070.375 €

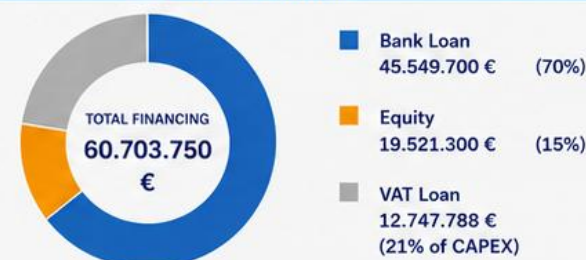
4. FINANCING ASSUMPTIONS

Equity	19.521.300 €	15%
Bank Loan	45.549.700 €	70%
Loan-to-Value (LTV)	70%	
VAT Loan (21% of CAPEX excl. VAT)	12.747.788 €	
Loan Interest Rate	2,68%	
Bank Margin	4,00%	
Loan Maturity	10 years	
Grace Period	12 months	
Loan Term	108 months	
Equity Share of Total Capital	15%	
Data Coverage	7,20%	
Profit Tax Rate	16%	
WACC	8,70%	

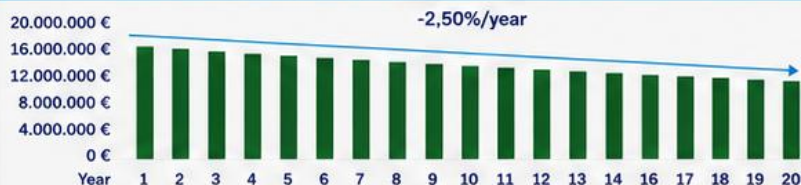
5. KEY FINANCIAL INDICATORS



6. CAPITAL STRUCTURE



7. ANNUAL REVENUE ESTIMATE



8. FINANCIAL SUMMARY

Annual Revenue (Year 1)	16.586.522 €/year
Cumulative Revenue (20 years)	275.323.693 €
Annual Operating Cost	1.863.000 €/year
Net Present Value (NPV)	15,916 million €
IRR (Project)	15,00%
IRR (Equity)	33%
Payback Period	6 years
Discounted Payback Period	5 years
Equity Investment (Year 12)	2.779.990,2 €
Avoided CO ₂ Emissions	26.361 t/year

9. HIGHLIGHTS

- ✓ High annual production: 65.912 MWh/year
- ✓ Stable and predictable revenues over 20 years
- ✓ BESS integration maximizes energy market revenues
- ✓ Attractive financial returns
- ✓ Optimized financing structure (70% debt)
- ✓ Sustainable project aligned with ESG objectives



STABLE
PRODUCTION



PREDICTABLE
REVENUES



REDUCED
RISKS



ATTRACTIVE
RETURNS



SUSTAINABLE
INVESTMENT



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