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Does a solar + storage project with 11.8% IRR really exist?



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Romania • 10 MW Solar + 5 MWh BESS • Full technical & economic feasibility validated



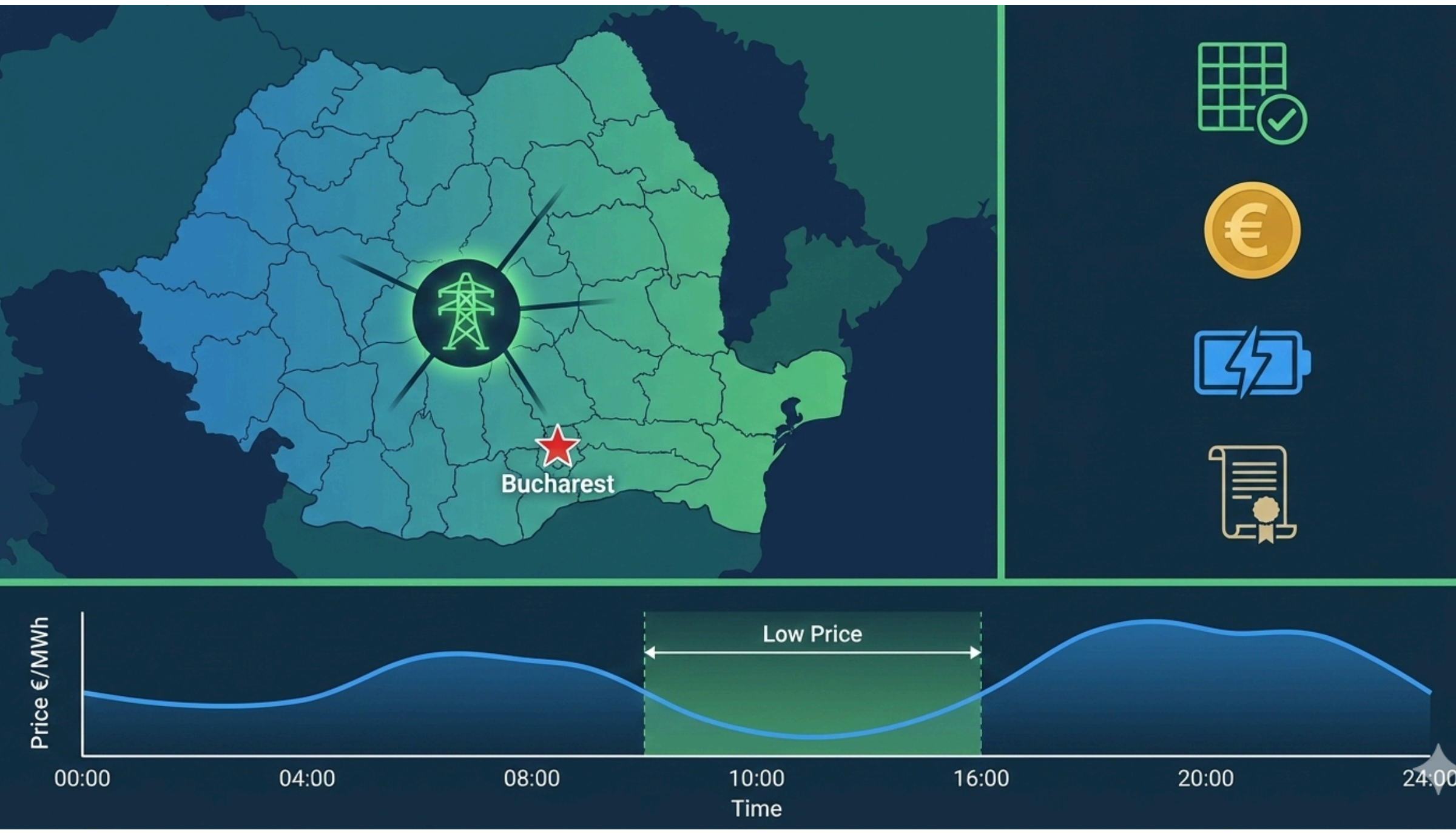
Based on real-time power prices, policy framework & CAPEX benchmarks | Updated Q1 2026



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Why Romania?



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Romania: Eastern Europe's Underrated Renewable Hotspot

- ✅ No curtailment: 100% solar export guaranteed
- ⚡ Mature ancillary markets: Commercial aFRR/FCR bidding open since 2024
- 💰 VAT exemption: 19% VAT waived on imported solar modules & batteries
- 📈 High price volatility: Day-ahead lows €30–40/MWh, peaks €120–160/MWh
- 🌍 EU funding access: Eligible for Modernisation Fund grants

Key Economic Metrics (10-Year Horizon)

NPV: €4.5M

Capacity: 50MW / 100MWh

IRR: 11.8%

Above typical EU hybrid project hurdle (8–9%)

Paybak: 6.2 years

COD: Q4 2025

Wednesday, February 4, 2026 at 5:34:21 PM



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Metric	Value
Total CAPEX	€4.59M
— Solar (10 MW)	€3.8M (€380/kW)
— BESS (5 MWh)	€3.8M (€760/kWh)*
Annual Generation	10,800 MWh
Annual Revenue	€934,000
Annual OPEX	€230,000 (O&M, insurance, land lease)
Net Annual Cash Flow	€704,000
Payback Period	6.5 years
NPV (8% discount)	€1.82M
IRR	11.80%

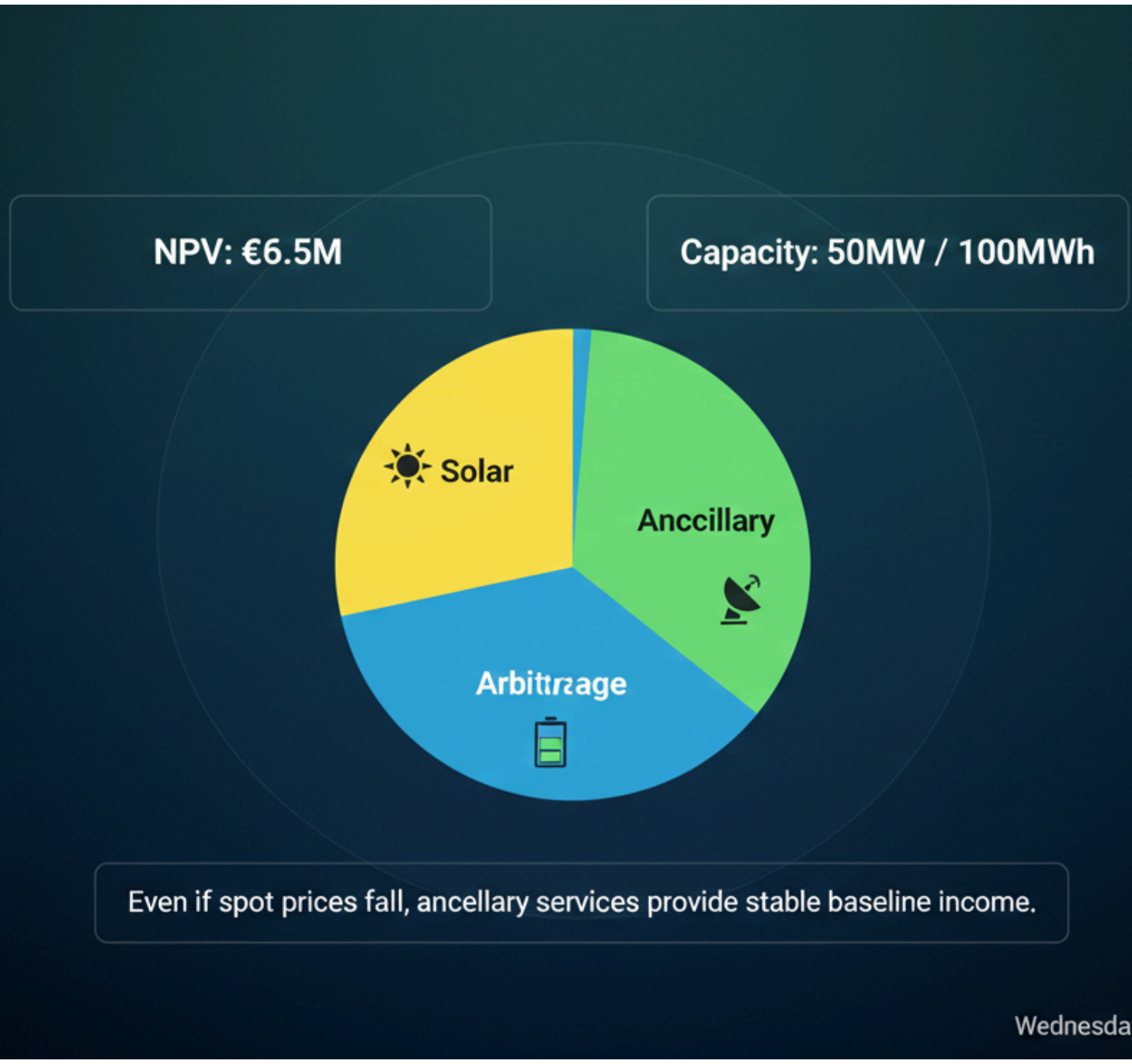
Note: BESS CAPEX includes PCS, EMS, installation, and grid connection



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Triple Revenue Streams = Resilient Cash Flow





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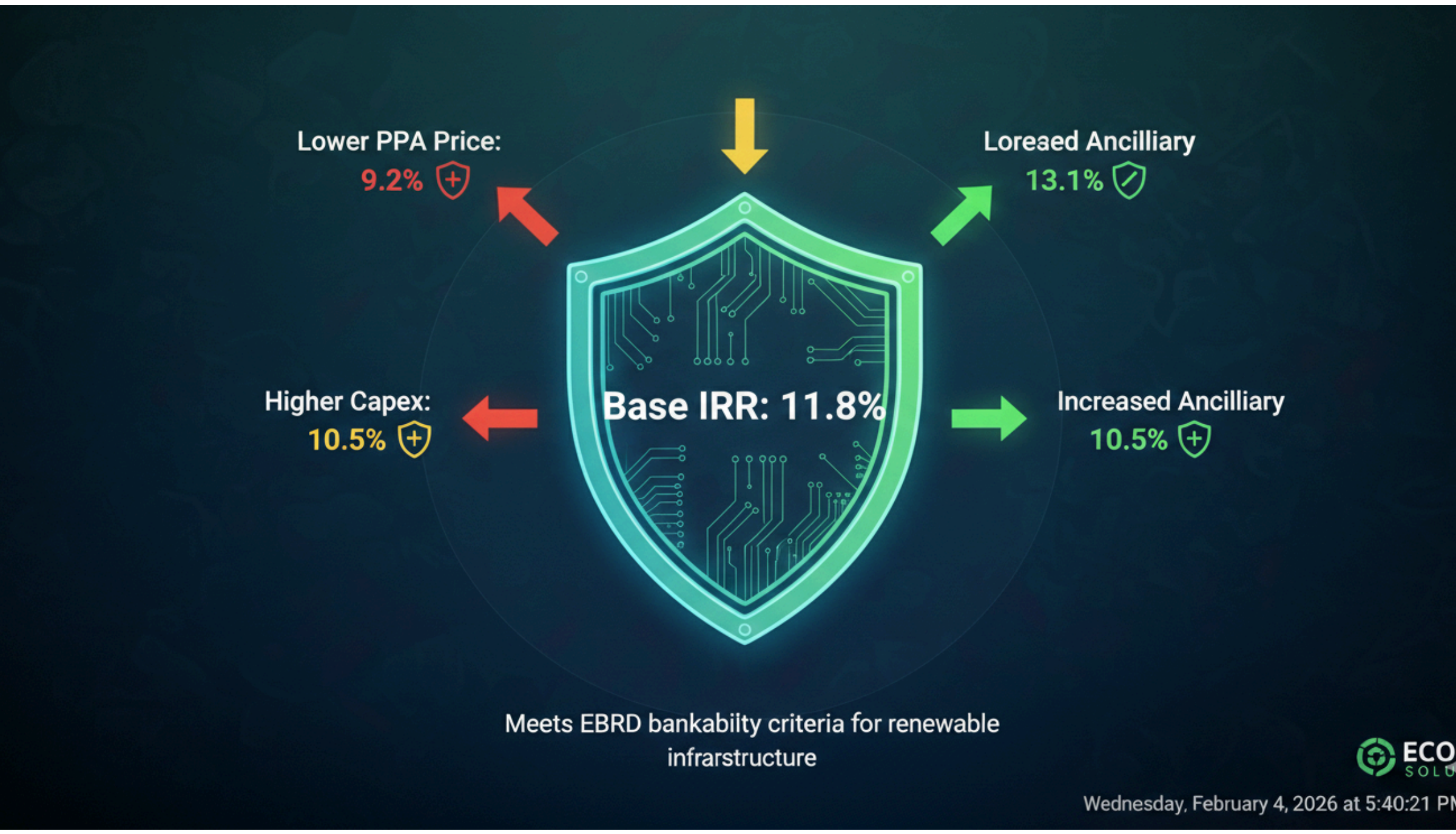
1. Solar Power Sales (73%)
    - 10,800 MWh × €63/MWh (blended PPA/spot)
    - ≈ €680,000/year

2. Storage Arbitrage (14%)
    - 1 cycle/day, 88% round-trip efficiency
    - €105/MWh spread × 5 MWh × 330 days × 88%
    - ≈ €133,000/year

3. Ancillary Services (13%)
    - aFRR (automatic frequency restoration) + FCR (primary reserve)
    - Capacity + activation payments
    - ≈ €123,000/year

Strategic Value:
Demonstrates risk mitigation. In volatile European power markets, multi-stream revenue is essential for long-term viability.

Stress Tested: Robust Unde Adverse Conditions





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Scenario Testing (heatmap or table format)

- Even under combined stress (higher costs + lower prices), IRR remains above the typical financing threshold (8–9%) for clean energy projects in Eastern Europe—confirming strong resilience.

Scenario	IRR	Viable?
Base Case	11.80%	✅ Yes
CAPEX +20%	10.10%	✅ Yes
Power Price –20%	9.50%	✅ Yes (>8% hurdle)
Yield –10%	10.60%	✅ Yes
Interest Rate ↑ to 6%	10.30%	✅ Yes

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Your paragraph texThis project is advanced-ready with:

- Site secured (grid pre-approval obtained)
- Technical design (N-type TOPCon + liquid-cooled BESS)
- Financial model (including Monte Carlo simulation)
- Regulatory compliance review

Ideal for:

- 🔹 Equity investors seeking > 10% IRR in infrastructure assets
- 🔹 EPC contractors with EU grid interconnection experience
- 🔹 BESS suppliers looking for European reference projects
- 🔹 Green bond issuers or DFIs



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📥 Want to Evaluate This Opportunity?



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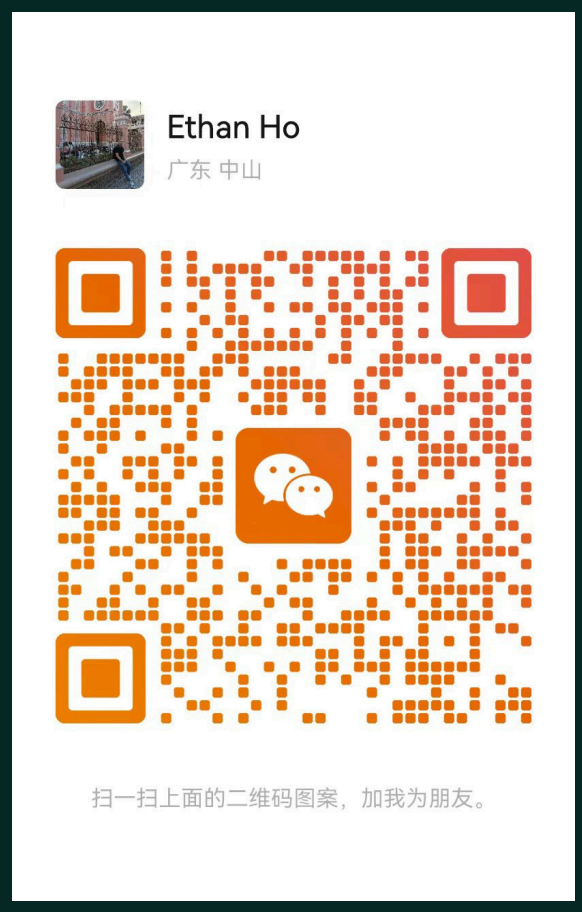


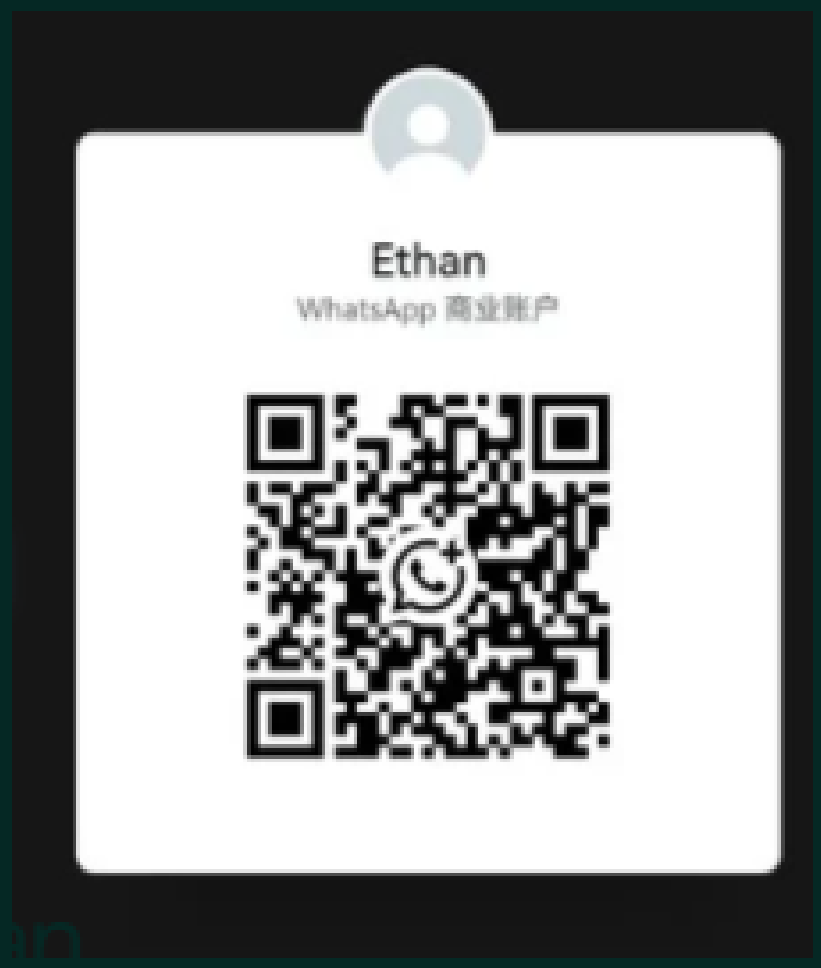
✅ DM me for the Executive Summary (PDF, bilingual)
✅ Book a 30-minute deep-dive call
✅ Join our Romania Renewable Projects Collaboration Group



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