



KANNE & JOOS

GROUP

Do business with the sun

Tel: 0049-152-32050793

Email: p.joos@joosenergie.de

Expose PV-Project Arad 3

General Information

Project Name: **Arad 3**
Country: Romania
Location: 30km north of Timisoara

Site Information

Lot Size: ca. 178ha see appendix
Power: 204,4 MWp DC – 180,2MW AC
Optional Battery: 180MW with 720MWh
Design: fix direction south other options possible
Type of surface: Agriculture land class 3
Inclination: complete flat
Access road: 1,2km until asphalt street
Condition's land: Superfice Contract 30 years – 2.500€/ha/a + inflation (Reference year 2023) + 25.000€/ha/a for battery optional
Condition Connection: Connection point for PV-plant in 400kV-Line on the area, between 2027-2029, (confirmed by Transelectrica), update for Batteries is in work expected in Q2-Q3 2025 see appendix red area
Authorizations: Aviz CTES obtain, (confirmation that solution study is accepted by Transelectrica) waiting for ATR. Next step, ATR and Update with Batteries expected Q2-Q3 2025, Connection contract expected Q1/2026 and building permits expected Q1/Q2 2026
Horizontal irradiation: like PVgis: 1.599,36kWh/m²
Production: like PVgis for fix direction south by 14% system lost: 1.246kWh/kWp bifacial: 1.308kWh/kWp (5% surcharge)
Price offer turnkey: 600.000€/MWp + optional 150.000€/MWh storage capacity
Price offer ready to build: 130.000€/MWp including grid connection cost + optional 5.000€/MWh storage capacity
70.000€/MWp without grid connection cost + optional 5.000€/MWh storage capacity
Expected Ready to build: Q1/Q2 2026

Economic analysis without battery project:

Arad 3 - Connection in 2028/2029



Plant key data:				
system type	open space fix tild			
system size	204,40	MWp		
battery size	-	MWh		
through. Specific annual yield	1.308,00	kWh/kWp		
Price per MWh 1st year inflation adjustment every 3 years 4.5%	54,00 €	MWh		
period under review	30,00	Jahre		
Turnover and costs:		Total in MWh	per MWp	
average annual electricity yield	256.044,39	1252,66		
average annual turnover	16.934.778,12 €	82.851,16 €		
average annual total costs	8.526.686,41 €	41.715,69 €		
Investment costs:		In total	per MWp/per MWh	
net investment amount of PV system	122.640.000,00 €	600.000,00 €		
net investment amount battery	- €	150.000,00 €		
Financing:		PV system	battery	In total
Initial equity invested	24.528.000,00 €	- €	- €	24.528.000,00 €
Loan 1, loan term 15 years, interest rat 5% Amount:	98.112.000,00 €	- €	- €	98.112.000,00 €
Loan 2 for TVA: loan term 15 years, interest rat 5% Amount:	6.132.000,00 €	- €	- €	6.132.000,00 €
interest rate for liquid assets	1,0%	1,0%		
Tax regulations				
depreciation period in years (linea)	12	12		
tax rate	16,0%	16,0%		
Economic result:		Without battery		
return on equity on invested equity	27,45%			
total payouts on invested equity	823,5%			
Average annual profit after taxes	6.733.330 €			

Economic analysis with battery project:

Arad 3 - Connection in 2028/2029

Plant key data:				
system type	open space fix tild			
system size	204,40	MWp		
battery size	720,00	MWh		
through. Specific annual yield	1.308,00	kWh/kWp		
Price per MWh 1st year inflation adjustment every 3 years 4.5%	75,00 €	MWh		
period under review	30,00	Jahre		
Turnover and costs:		Total in MWh	per MWp	
average annual electricity yield	256.044,39	1252,66		
average annual turnover	23.520.525,17 €	115.071,06 €		
average annual total costs	13.204.625,23 €	64.601,88 €		
Investment costs:		In total	per MWp/per MWh	
net investment amount of PV system	122.640.000,00 €	600.000,00 €		
net investment amount battery	108.000.000,00 €	150.000,00 €		
Financing:		PV system	battery	In total
Initial equity invested	24.528.000,00 €	21.600.000,00 €	21.600.000,00 €	46.128.000,00 €
Loan 1, loan term 15 years, interest rat 5% Amount:	98.112.000,00 €	86.400.000,00 €	86.400.000,00 €	184.512.000,00 €
Loan 2 for TVA: loan term 15 years, interest rat 5% Amount:	6.132.000,00 €	5.400.000,00 €	5.400.000,00 €	11.532.000,00 €
interest rate for liquid assets	1,0%	1,0%	1,0%	
Tax regulations				
depreciation period in years (linea)	12	12		
tax rate	16,0%	16,0%		
Economic result:		With battery		
return on equity on invested equity	21,08%			
total payouts on invested equity	632,4%			
Average annual profit after taxes	9.723.306 €			

Pictures Project

Google Earth picture

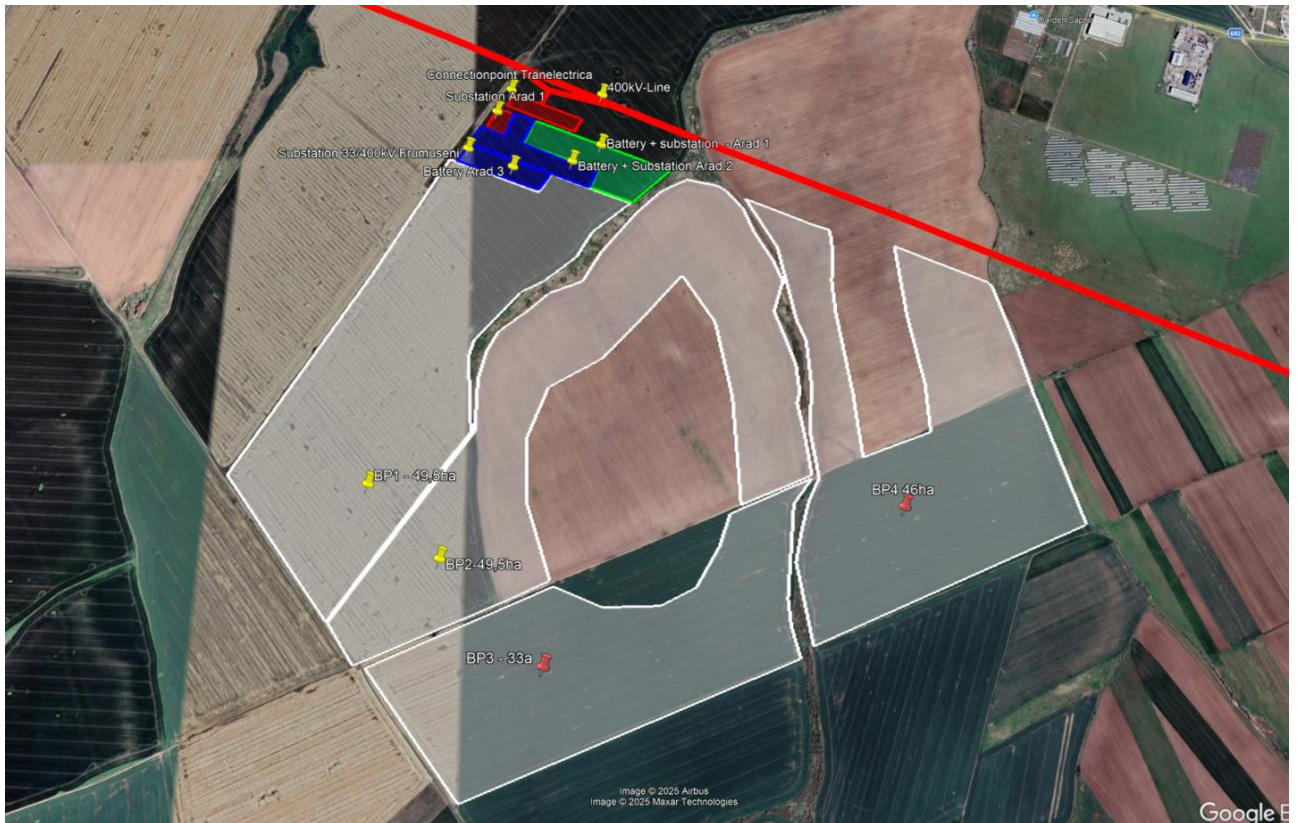


Photo 1: Overview Project Arad 3



Photo 2: Project area ARAD 3 from West

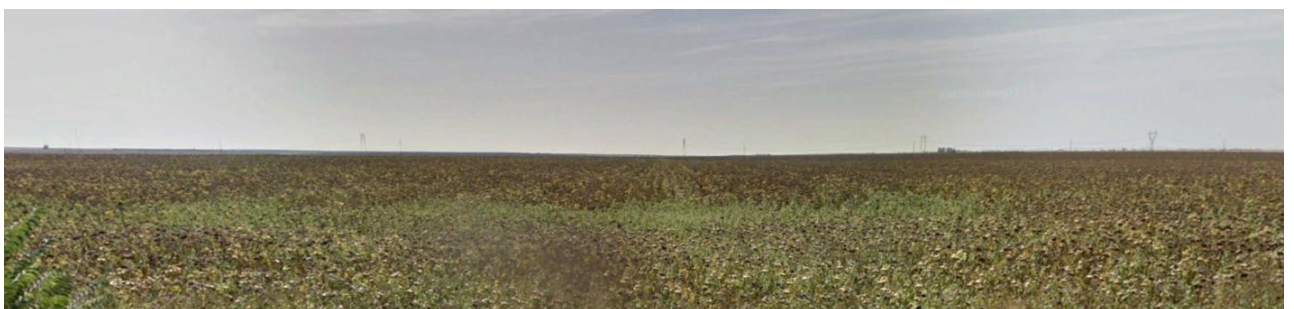


Photo 2: Project area ARAD 3 from North