

9.2 Výstup z návrhu FVE

9.2.3 2. ETAPA



Amazon Court, Karolinská 661/4, 186 00 Prague 8
Czech Republic

STUDIE PROVEDITELNOSTI
MODERNIZACE KALOVÉHO A ENERGETICKÉHO HOSPODÁŘSTVÍ ÚČOV

NÁZEV PŘÍLOHY
VÝSTUP Z NÁVRHU FVE

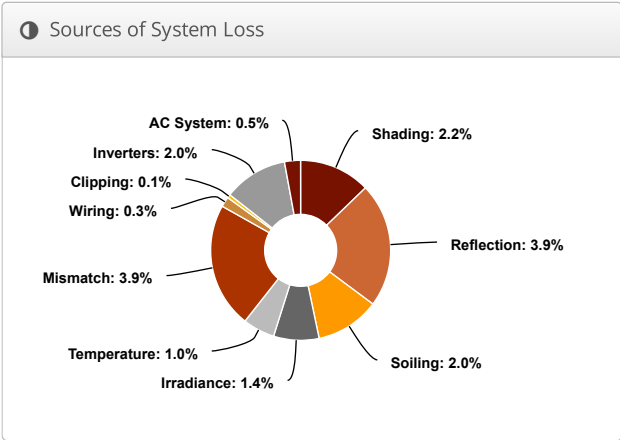
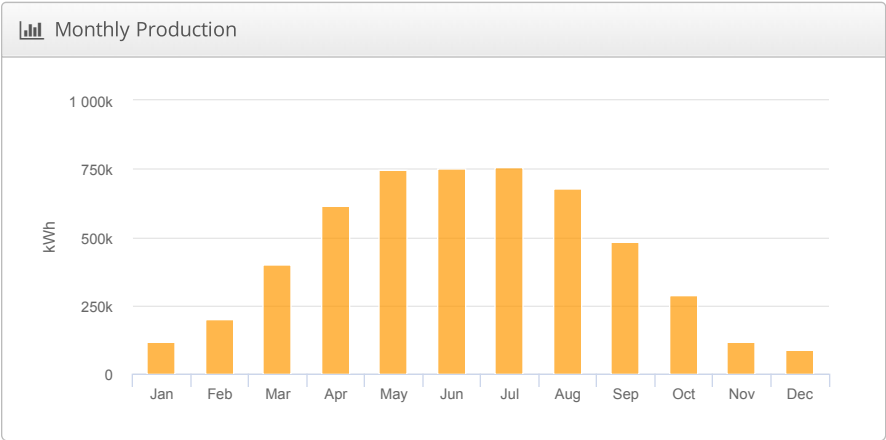
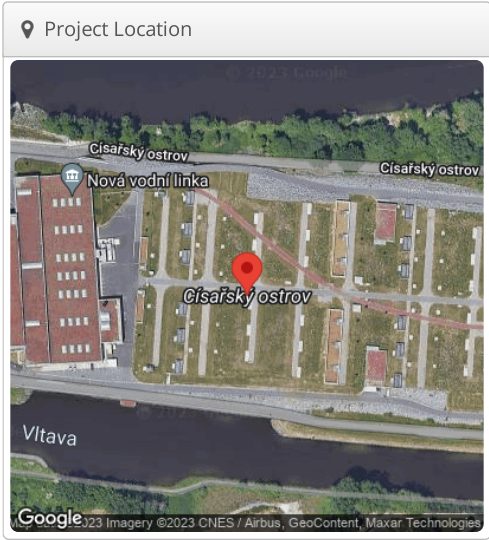
MĚŘÍTKO
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Č. PŘÍLOHY
9.2.3

South Design 0_10 ČOV Císařský ostrov Praha, 50.1121757, 14.407484800000002

Report	
Project Name	ČOV Císařský ostrov Praha
Project Description	ČOV Císařský ostrov Praha
Project Address	50.1121757, 14.407484800000002
Prepared By	SPV1 Photon Energy it@photonenergy.com

System Metrics	
Design	South Design 0_10
Module DC Nameplate	5.46 MW
Inverter AC Nameplate	4.40 MW Load Ratio: 1.24
Annual Production	5.245 GWh
Performance Ratio	83.9%
kWh/kWp	961.4
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)
Simulator Version	5aee66451a-bd835f4a09-97ab2b5119-59c665659f



⚡ Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	1,064.4	
	POA Irradiance	1,146.3	7.7%
	Shaded Irradiance	1,120.9	-2.2%
	Irradiance after Reflection	1,077.3	-3.9%
	Irradiance after Soiling	1,055.8	-2.0%
	Total Collector Irradiance	1,055.7	0.0%
Energy (kWh)	Nameplate	5,759,619.3	
	Output at Irradiance Levels	5,678,086.7	-1.4%
	Output at Cell Temperature Derate	5,621,433.4	-1.0%
	Output After Mismatch	5,401,462.8	-3.9%
	Optimal DC Output	5,384,515.6	-0.3%
	Constrained DC Output	5,378,758.8	-0.1%
	Inverter Output	5,271,068.7	-2.0%
	Energy to Grid	5,244,713.5	-0.5%
Temperature Metrics			
Avg. Operating Ambient Temp		12.5 °C	
Avg. Operating Cell Temp		18.5 °C	
Simulation Metrics			
		Operating Hours	4553
		Solved Hours	4553

☁ Condition Set												
Description	Condition Set 1											
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)											
Solar Angle Location	Meteo Lat/Lng											
Transposition Model	Perez Model											
Temperature Model	Sandia Model											
Temperature Model Parameters	Rack Type	a		b		Temperature Delta						
	Fixed Tilt	-3.56		-0.075		3°C						
	Flush Mount	-2.81		-0.0455		0°C						
	East-West	-3.56		-0.075		3°C						
	Carport	-3.56		-0.075		3°C						
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	2	2	2	2	2	2	2	2	2	2	2	2
Irradiation Variance	5%											
Cell Temperature Spread	4° C											
Module Binning Range	-2.5% to 2.5%											
AC System Derate	0.50%											
Trackers	Maximum Angle							Backtracking				
	60°							Enabled				
Module Characterizations	Module					Uploaded By		Characterization				
	JKM470N-60HL4-V (Jinko)					HelioScope		Spec Sheet Characterization, PAN				
Component Characterizations	Device						Uploaded By		Characterization			
	SUN2000-50KTL-M3 (400V) (Huawei)						HelioScope		Spec Sheet			

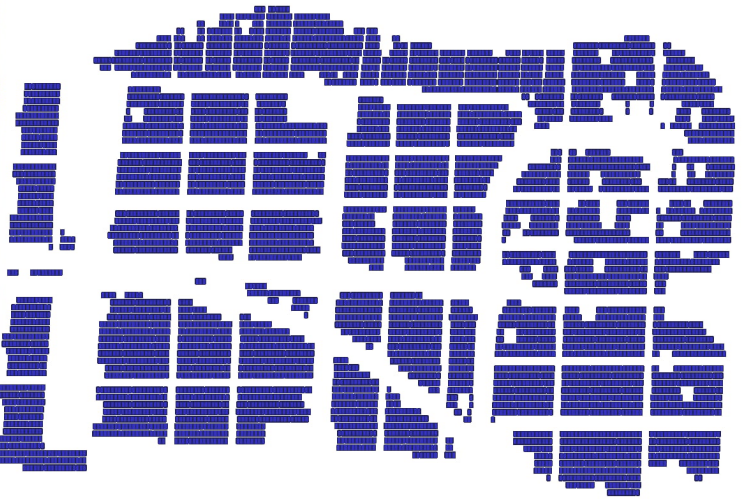
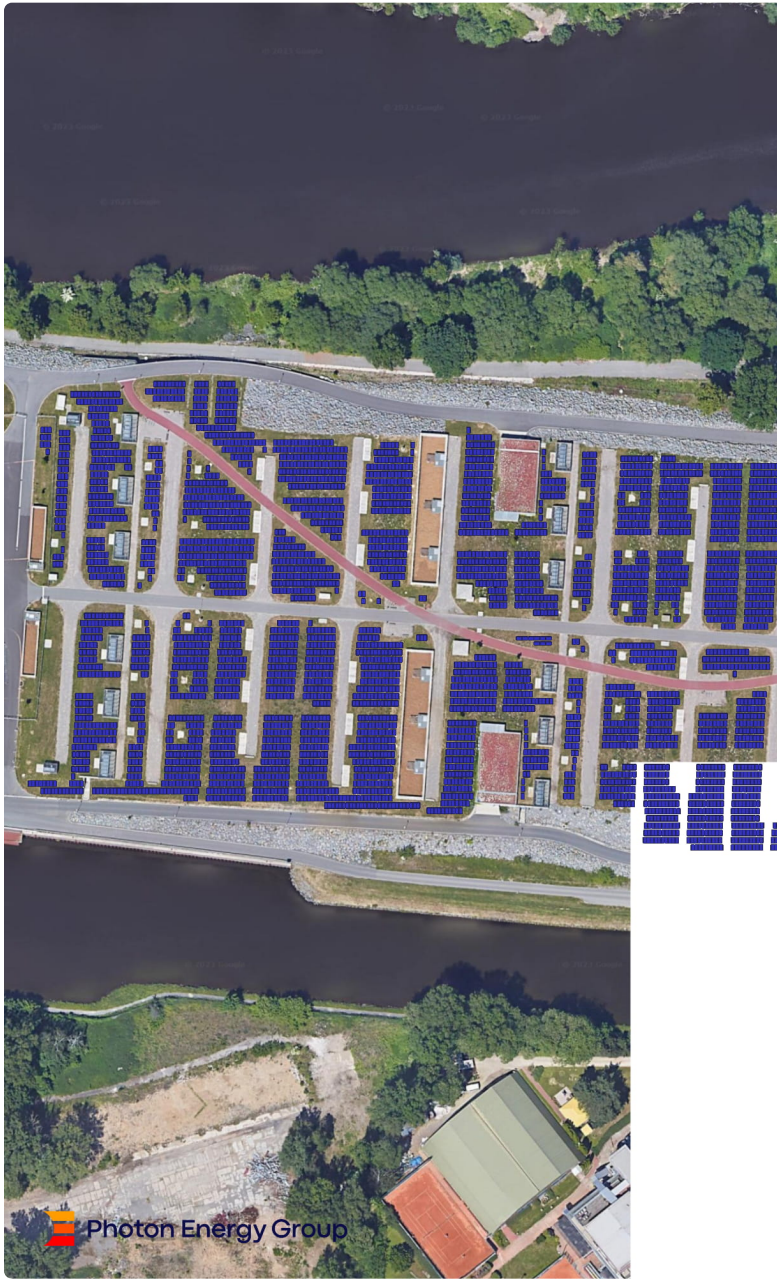
📦 Components		
Component	Name	Count
Inverters	SUN2000-50KTL-M3 (400V) (Huawei)	88 (4.40 MW)
Strings	10 AWG (Copper)	537 (28,744.1 m)
Module	Jinko, JKM470N-60HL4-V (470W)	11,607 (5.46 MW)

🔌 Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	6-23	Along Racking

🏠 Field Segments									
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Pozemek 1	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	199	199	93.5 kW
Pozemek 2	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	343	343	161.2 kW
Field Segment 3	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	246	246	115.6 kW
Field Segment 4	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	120	120	56.4 kW
Field Segment 5	Fixed Tilt	Portrait (Vertical)	15°	180°	0.5 m	1x1	56	56	26.3 kW
Field Segment 6	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	1,319	1,319	619.9 kW
Field Segment 7	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	50	50	23.5 kW
Field Segment 8	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	10	10	4.70 kW
Field Segment 9	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	186	186	87.4 kW
Field Segment	Fixed	Portrait (Vertical)	10°	180°	0.5 m	1x1	320	320	150.4

	10	Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	290	290	kW
Field Segment	11	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	290	290	136.3 kW
Field Segment	12	Fixed Tilt	Landscape (Horizontal)	10°	180°	0.5 m	1x1	9	9	4.23 kW
Field Segment	13	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	71	71	33.4 kW
Field Segment	14	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	935	935	439.5 kW
Field Segment	15	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	914	914	429.6 kW
Field Segment	16	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	980	980	460.6 kW
Field Segment	17	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	891	891	418.8 kW
Field Segment	18	Fixed Tilt	Portrait (Vertical)	15°	180°	0.5 m	1x1	50	50	23.5 kW
Field Segment	19	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	3	3	1.41 kW
Field Segment	20	Fixed Tilt	Portrait (Vertical)	15°	180°	0.5 m	1x1	48	48	22.6 kW
Field Segment	21	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	51	51	24.0 kW
Field Segment	22	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	12	12	5.64 kW
Field Segment	23	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	3	3	1.41 kW
Field Segment	24	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	37	37	17.4 kW
Field Segment	25	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	770	770	361.9 kW
Field Segment	26	Fixed Tilt	Portrait (Vertical)	15°	180°	0.5 m	1x1	4	4	1.88 kW
Field Segment	27	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	360	360	169.2 kW
Field Segment	28	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	249	249	117.0 kW
Field Segment	29	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	1,103	1,103	518.4 kW
Field Segment	30	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	755	755	354.9 kW
Field Segment	31	Fixed Tilt	Portrait (Vertical)	10°	180°	0.5 m	1x1	1,223	1,223	574.8 kW

 Detailed Layout



Recenter View

Map

SLD

Google

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