



Surf-n-Sun
Energy

3MWp PV SOLAR PLANT WITH 1.5MWh BESS

EL SALVADOR 



NATURAL BORN ENERGY



3MWp
PV SOLAR PLANT



1.5MWh
BESS CAPACITY



8 x 360NX
INVERTER UNITS



2 x 1,5MWh
BESS UNITS



TOTAL PV CAPACITY
3MWp



BESS CAPACITY
1.5MWh



INVERTER UNITS
8 x 360NX



BESS UNITS
2 x 1,5MWh units

CUSTOMER / PROJECT OWNER



Surf-n-Sun
Energy

Surf-n-Sun Energy
El Salvador

Sustainable Energy for
a Brighter Future

SUPPLIER & MANUFACTURER



RSNKP GmbH

Switzerland

Natural Born Energy.
Engineered for Tomorrow.



RELIABLE
High-performance
components



SUSTAINABLE
Clean energy for
a better tomorrow



INNOVATIVE
Advanced technology
solutions



GLOBAL
Engineered in Switzerland
– powering the world

page directory

DESIGNATION	PAGES
project description.	1 - 2
Project location.	3
Project cost overview.	4 - 5
PVSYST simulation results.	6 – 28
Comfar III economic results.	29 – 47
Material catalog.	48 – 67
Electrical plan.	68 – 72
Site overview, subconstruction.....	73 – 75
3D.	76-77
project involved.	78

NATURAL BORN ENERGY



NATURAL BORN ENERGY

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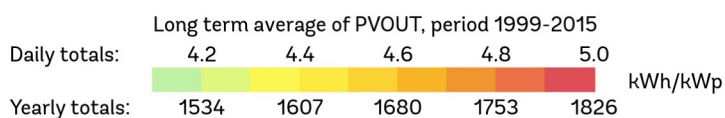
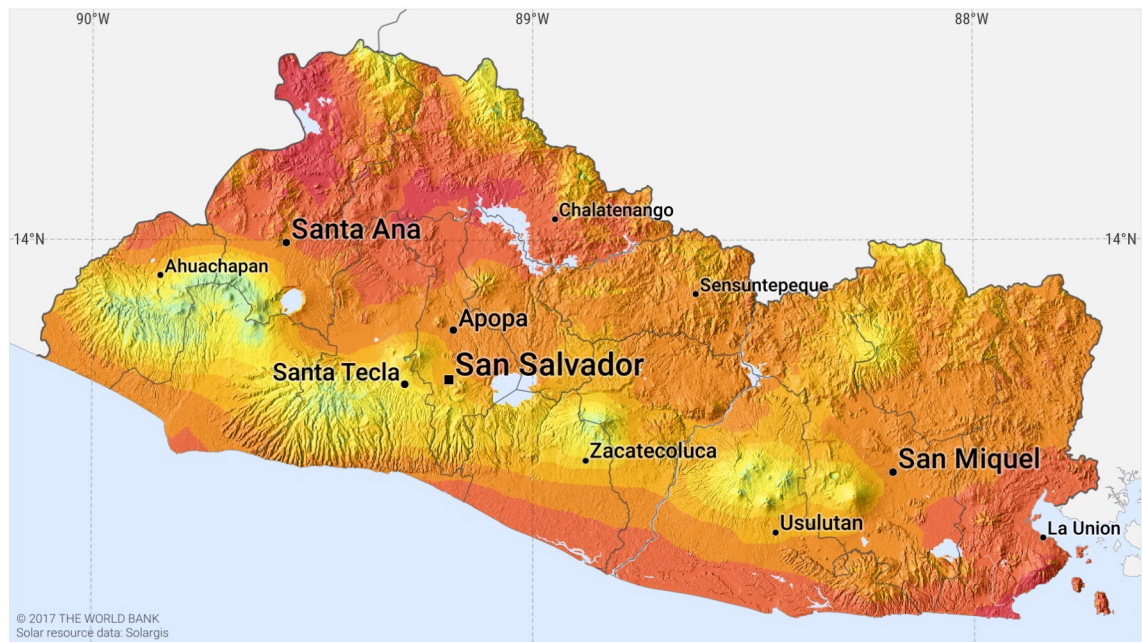
SURF-N-SUN ENERGY

PACIFIC POWER ARBITRAGE

SOLAR RESOURCE MAP

PHOTOVOLTAIC POWER POTENTIAL

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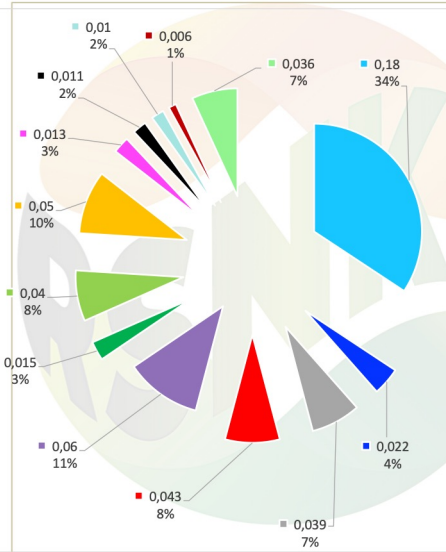
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3 MWp EL Salvador EPC cost 0,525 USD/Wp

- 1. Modul
- 2. Inverter+Combiner/Monitoring
- 3. Substructure
- 4. AC/DC Cabal + Fusebox
- 5. Transport
- 6. Planning Installation supervisor
- 7. Installation local Team
- 8. HV Trafo 20kV
- 9. Container safe inverter (CSI)
- 10. Land Secuirety + Fance
- 11. Insurance
- 12. Unpredictable costs
- 13. Land + PPA + development

EPC cost 1.575.000 USD

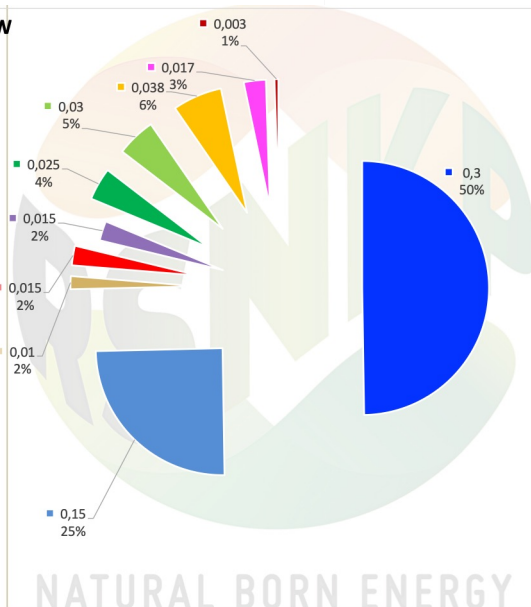


Battery backup system 1,5MW

EPC Cost 0.603 USD/W

- 1. Battery + Clamp Connection
- 2. Charge controller + inverter
- 3. Clamp + Screw
- 4. AC/DC Cabal + Fusebox
- 5. Transport
- 6. Planning Installation supervisor
- 7. Installation local Team
- 8. HV Trafo + Network connection
- 9. Container safe inverter (CSI)
- 10. Unpredictable costs

EPC cost 904.500USD



BESS – BATTERY ENERGY STORAGE SYSTEM

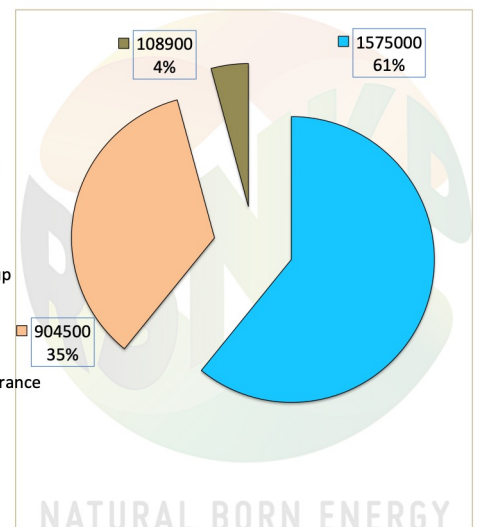
GESAMTANLAGE: 3 x 2MW – 40' CONTAINER



3MWp + 1,5MWh BESS

- 1. 3 MWp PV Power Plant
- 2. 1,5 MWh Battery Backup
- 3. Credit cancellation insurance

Total 2.588.400 USD



Cost overview

General Information			30.06.2026
Capacity	2904kWac	3 MWp+1,5MW BESS	
Location	El Salvador		
Spesific Production	1773 kWh/kWp year		
Total Production	5310703 kWh/year		
*PPA (15 years)			



PPA- 0,10 USD/kWh PV / 0,240 USD/kWh BESS

Financial Information

EL Salvador

CAPEX		Input	
Project Development (USD)	216.900	72	USD/kWp
BESS-EPC (USD 1,5MW)	904.500	603	USD/kWp
PV -EPC (USD)	1.317.000	439	USD/kWp
Grid Connection + HV-Trafo (USD)	150.000	50	USD/kWp
Total CAPEX (USD)	2.588.400	1.164	USD/kWp

Revenues		Input	
Capacity (MWp)	3,00		
Total Production (MWh)	5.257	1773 kWh/MWp/year	
PPA (USD/MWh) BB 548MWh	240		
PPA (USD/MWh) PV 4757 MWh	100		
Total Revenues (USD/year)	607.220		

Total Expenses		Input	
O&M and administrative Costs	75.680	25.226	USD/MWp
Balancing Cost	13.125	4.375	USD/MWp
Repairs	10.053	3.351	USD/MWp
O&M BB	17.250	11.250	USD/MW BB
Insurance	7.765	2.583	USD/MWp
Other	9.450	3.150	USD/MWp
Total Expenses (USD/year)	133.323		
EBITDA (USD/year)	473.897		

Inflation 3%
incoming Tax 30% from year 11

Turn Back Period			
Turn Back Period	6,8 years	IRR	14,70%

With Funding			
Financing			
Own funds (USD)	30%	776.520	
Loan/fixed - 7 years (USD)	70%	1.811.880	
Interest rate each year	8,50%		

Turn Back Period			
Turn Back Period	7,7 years	IRR	19,33%
		ROI	159,90%

Cost of produced energy (LCOE) 0,0681 USD/kWh

PVsyst - Simulation report

Grid-Connected System

Projekt: Surf-n-fun
1,5MW Battery Backup
System power: 2995 kWp
El Sunzal - El Salvador

Client

SURF N-FUN
Mr. Gorgin

Signature

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Signature



Project: Surf-n-fun

Variant: Neue Simulationsvariante



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Project summary

Geographical Site

El Sunzal
El Salvador

Situation

Latitude 13.4946 °(N)
Longitude -89.3813 °(W)
Altitude 18 m
Time zone UTC-6

Project settings

Albedo 0.20

Weather data

El Sunzal
Meteonorm 9.0 dll, Sat=100 % - Modelliert

System summary

Grid-Connected System

1,5MW Battery Backup

Orientation #1

Fixed plane
Tilt/Azimuth 15 / 0 °

Near Shadings

Linear shadings : Fast (table)

User's needs

Fixed constant load
62.5 kW
Global
548 MWh/Year

System information

PV Array

Nb. of modules 4608 units
Pnom total 2995 kWp

Inverters

Nb. of units 8 units
Total power 2904 kWac
Pnom ratio 1.03

Battery pack

Storage strategy: Self-consumption
Nb. of units 336 units
Voltage 48 V
Capacity 54880 Ah

Results summary

Simulation step Hourly

Produced Energy	5310703 kWh/year	Specific production	1773 kWh/kWp/year	Perf. Ratio PR	83.26 %
Used Energy	547501 kWh/year			Solar Fraction SF	99.49 %

Table of contents

Project and results summary	2
General parameters, PV Array Characteristics, System losses	3
Near shading definition - Iso-shadings diagram	5
Main results	6
Loss diagram	8
Predef. graphs	9
Ageing Tool	15
P50 - P90 evaluation	17
Single-line diagram	18
Cost of the system	19
Financial analysis	20
CO ₂ Emission Balance	23

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with V8.1.3

Project: Surf-n-fun

Variant: Neue Simulationsvariante



RSNKP GmbH (Switzerland)

General parameters**Grid-Connected System****1,5MW Battery Backup****Simulation step**

Hourly

Orientation #1**Fixed plane**

Tilt/Azimuth 15 / 0 °

Sheds configuration

Nb. of sheds 24 units

Single array

Shading limit angle

Limit profile angle 20.3 °

Sizes

Sheds spacing 8.00 m

Sensitive width 4.78 m

GCR Shading 60.0 %

Top inactive band 0.02 m

Bottom inactive band 0.02 m

Models used

Transposition Perez

Diffuse Perez, Meteonorm

Circumsolar separate

Horizon

Free Horizon

Near Shadings

Linear shadings : Fast (table)

Storage

Kind Self-consumption

User's needs

Fixed constant load

62.5 kW

Global

548 MWh/Year

PV Array Characteristics**PV module**

Manufacturer Solafabrik GmbH

Model SF132-TW 650-Ntyp TOPCon

(Custom parameters definition)

SF_Solar_SFTW132_HC_650_Topcon.PAN

Unit Nom. Power 650 Wp

Number of PV modules 4608 units

Nominal (STC) 2995 kWp

Modules 192 units x 24 In series

At operating cond. (50°C)

Pmpp 2770 kWp

U mpp 979 V

I mpp 2831 A

Total PV power

Nominal (STC) 2995 kWp

Total 4608 modules

Module area 12447 m²

Cell area 10990 m²

Inverter

Manufacturer KACO new energy

Model blueplanet 360 NX3 M6 WM OD IISX

(Custom parameters definition)

Unit Nom. Power 363 kWac

Number of inverters 48 * MPPT 17% 8 units

Total power 2904 kWac

Operating voltage 860-1300 V

Pnom ratio (DC:AC) 1.03

No power sharing between MPPTs

Total inverter power

Total power 2904 kWac

Number of inverters 8 units

Pnom ratio 1.03



Project: Surf-n-fun
Variant: Neue Simulationsvariante



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Grid storage - Self-consumption

Battery

Manufacturer Sonnenschein
Model A602 dryfit Gel VRLA 3920

Battery pack

Nb. of units 24 in series x 14 in parallel
Voltage 48 V
Nominal Capacity (C10) 54880 Ah
Nominal energy 2.63 MWh
Operating SOC limits 95.0 / 35.0 %
Useable energy 1.58 MWh
Operating temperature Fixed 20 °C

Battery input charger

Model Generic
Max. charging power 850 kWdc
Max./Euro effic. 98.0 / 96.5 %

Battery to Grid inverter

Model Generic
Max. discharging power 62 kWac
Max./Euro effic. 98.0 / 96.5 %

Array losses

Thermal Loss factor

Module temperature according to irradiance
Uc (const) 20.0 W/m²K
Uv (wind) 0.0 W/m²K/m/s

DC wiring losses

Global array res. 5.7 mΩ
Loss Fraction 1.50 % at STC

Module Quality Loss

Loss Fraction -0.75 %

Module mismatch losses

Loss Fraction 2.00 % at MPP

Strings Mismatch loss

Loss Fraction 0.10 %

IAM loss factor

Incidence effect (IAM): Fresnel smooth glass, n = 1.526

0°	30°	50°	60°	70°	75°	80°	85°	90°
1.000	0.998	0.981	0.948	0.862	0.776	0.636	0.402	0.000



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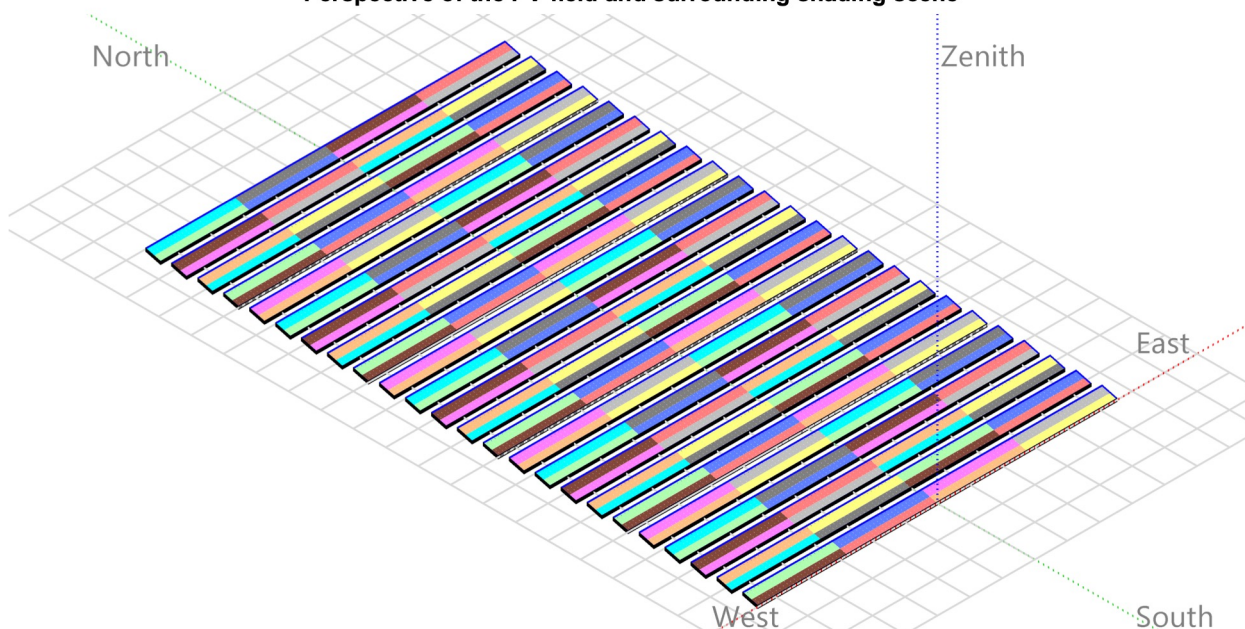
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Near shadings parameter

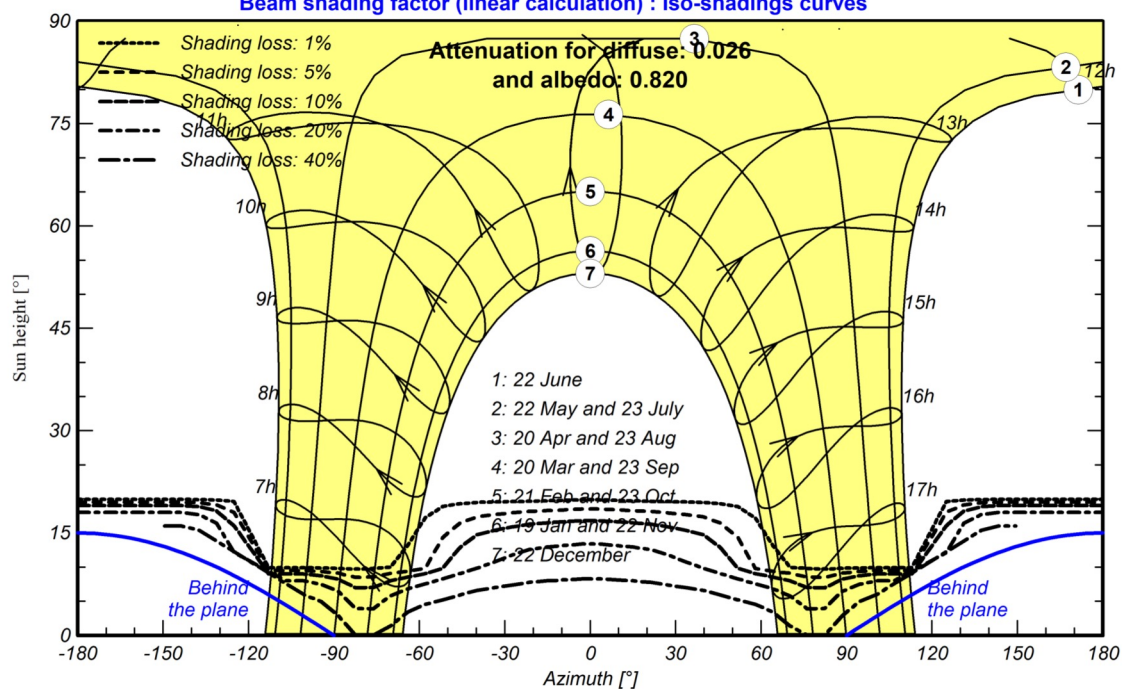
Perspective of the PV-field and surrounding shading scene



Iso-shadings diagram

Orientation #1 - Fixed plane, Tilts/azimuths: 15°/ 0°

Beam shading factor (linear calculation) : Iso-shadings curves



**PVsyst V8.1.3**

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Main results**Simulation step**

Hourly

System Production

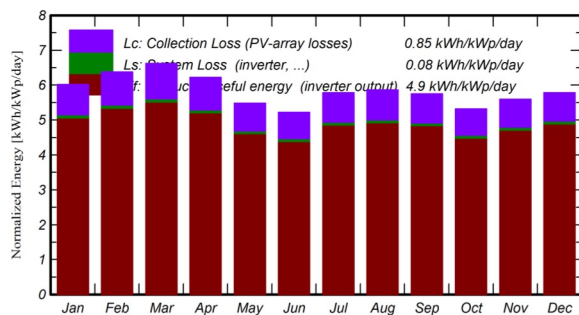
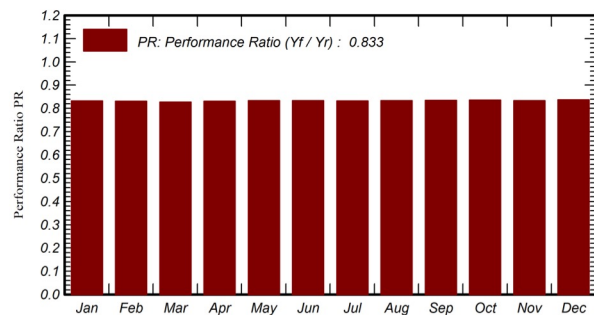
Produced Energy	5310703 kWh/year	Specific production	1773 kWh/kWp/year
Used Energy	547501 kWh/year	Perf. Ratio PR	83.26 %
		Solar Fraction SF	99.49 %

Battery ageing (State of Wear)

Cycles SOW	87.8 %
Static SOW	91.7 %
Battery lifetime	8.2 years

Economic evaluation

Investment		Yearly cost		LCOE	
Global	2.588.400.24 USD	Annuities	353.985.63 USD/yr	Energy cost	0.07 USD/kWh
Specific	0.86 USD/Wp	Run. costs	179.121.95 USD/yr		
		Payback period	7.2 years		

Normalized productions (per installed kWp)**Performance Ratio PR****Balances and main results**

	GlobHor kWh/m ²	DiffHor kWh/m ²	T_Amb °C	GlobInc kWh/m ²	GlobEff kWh/m ²	EArray kWh	E_Grid kWh	PR ratio	E_Grid kWh	E_Grid kWh
January	161.5	55.22	26.91	186.7	181.1	478661	419538	0.832	617	617
February	161.5	55.82	27.36	178.6	173.3	455627	402579	0.831	185	185
March	196.7	69.91	27.96	205.2	198.8	520998	462095	0.827	204	204
April	190.2	82.56	28.42	186.6	180.2	475814	419373	0.830	199	199
May	180.7	89.15	27.91	170.0	163.2	435816	378070	0.833	191	191
June	169.9	80.26	27.26	156.6	149.9	401605	345973	0.833	179	179
July	193.9	77.99	27.60	179.4	172.3	458983	400797	0.832	187	187
August	188.9	79.01	27.39	181.8	174.9	465027	407134	0.833	202	202
September	170.1	76.28	26.78	172.4	166.3	442414	386212	0.835	198	198
October	154.4	72.94	26.51	164.8	159.0	423976	366419	0.836	206	206
November	148.0	59.20	26.77	167.9	162.1	430876	374342	0.834	200	200
December	153.6	56.06	26.78	179.4	174.0	461911	403447	0.837	207	207
Year	2069.4	854.39	27.31	2129.5	2055.1	5451708	4765979	0.833	2777	2777



Project: Surf-n-fun
Variant: Neue Simulationsvariante
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with V8.1.3

Main results

Legends

GlobHor	Global horizontal irradiation	EArray	Effective energy at the output of the array
DiffHor	Horizontal diffuse irradiation	E_Grid	Energy injected into grid
T_Amb	Ambient Temperature	PR	Performance Ratio
GlobInc	Global incident in coll. plane	EFrGrid	Energy from the grid
GlobEff	Effective Global, corr. for IAM and shadings	EFrGrid	Energy from the grid



PVsyst V8.1.3

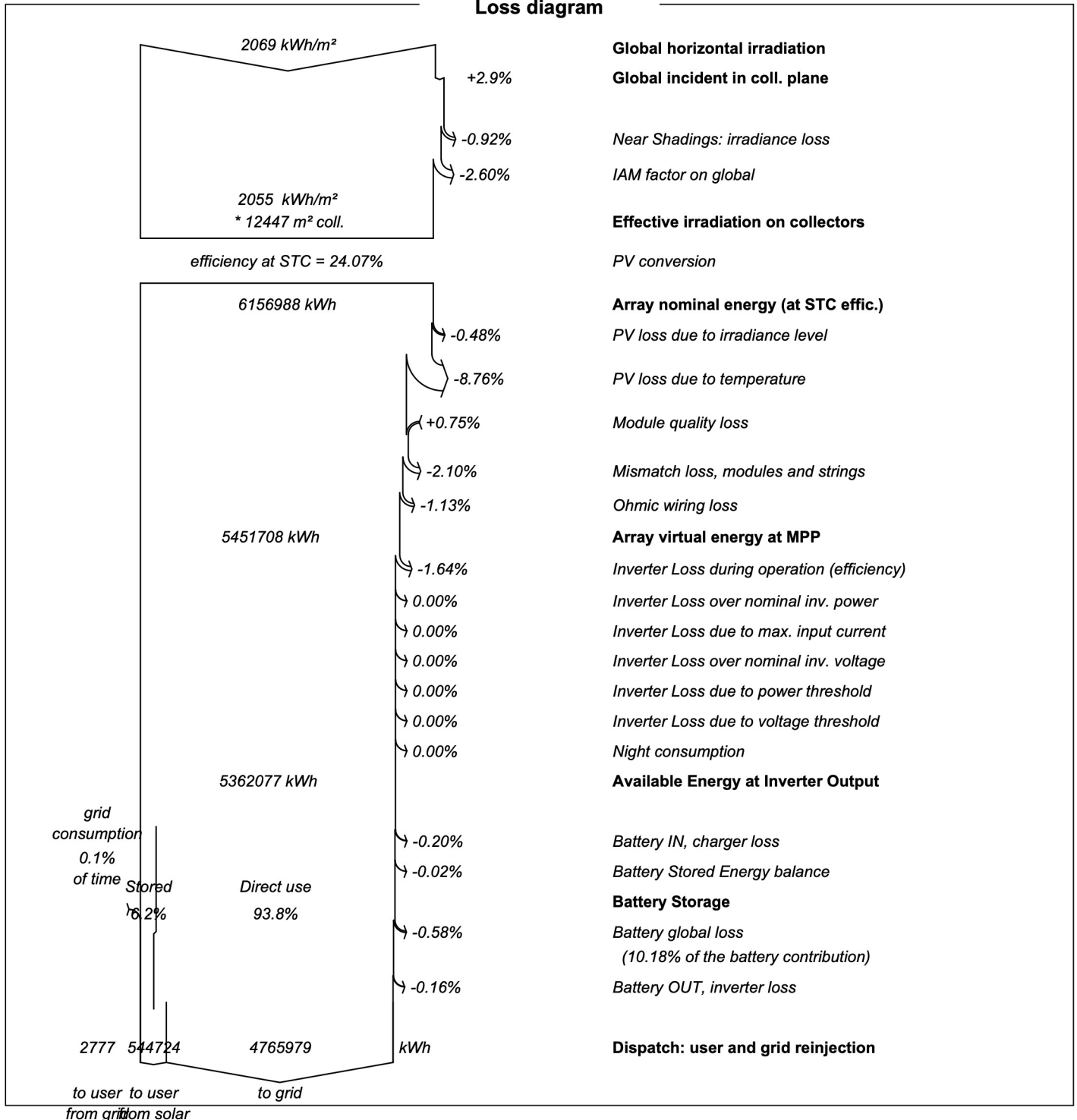
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Loss diagram





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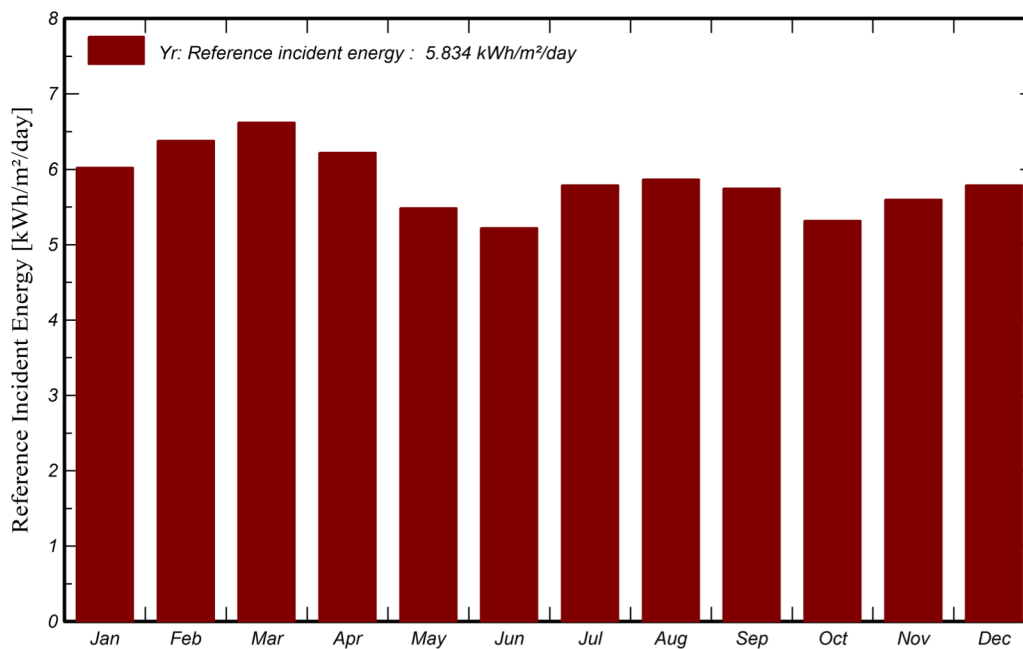
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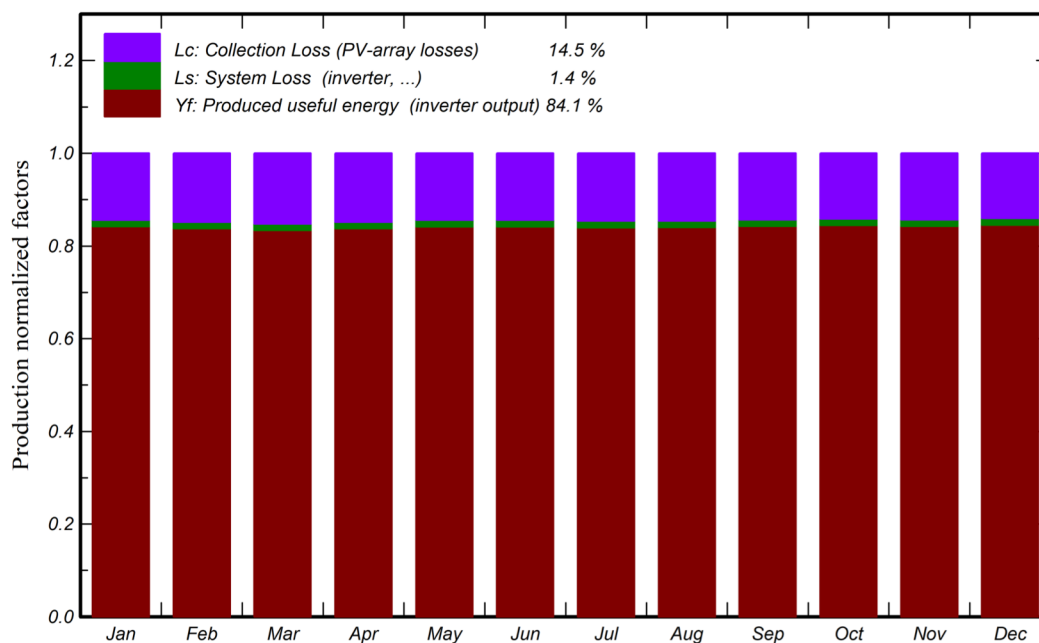


Predef. graphs

Reference Incident Energy in Collector Plane



Normalized Production and Loss Factors





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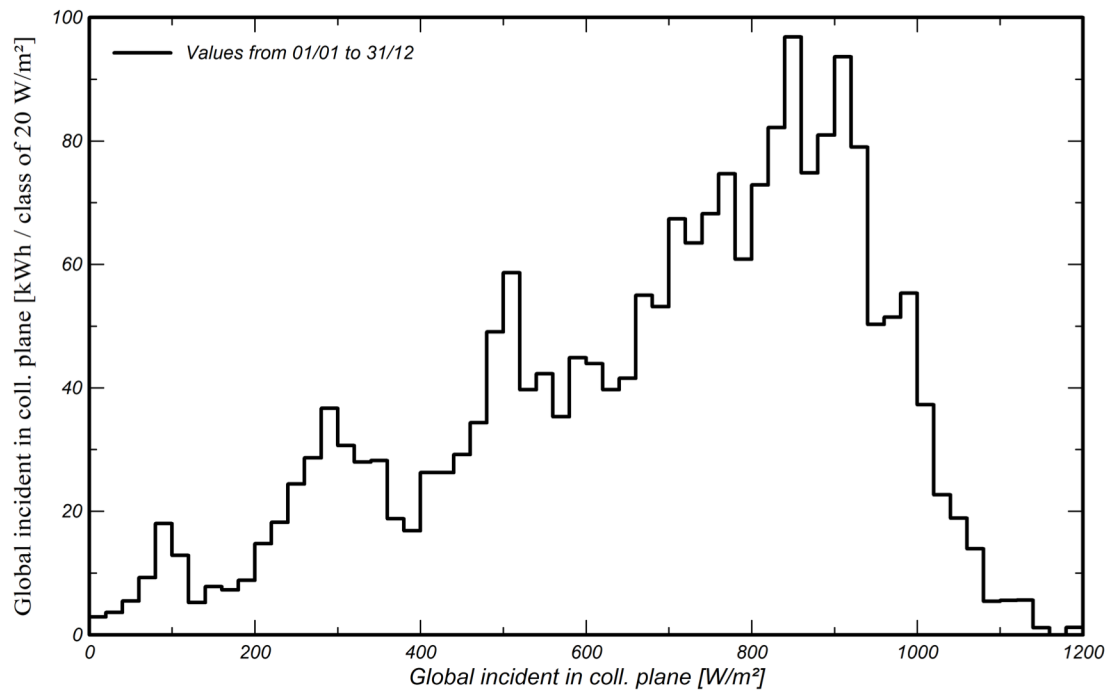
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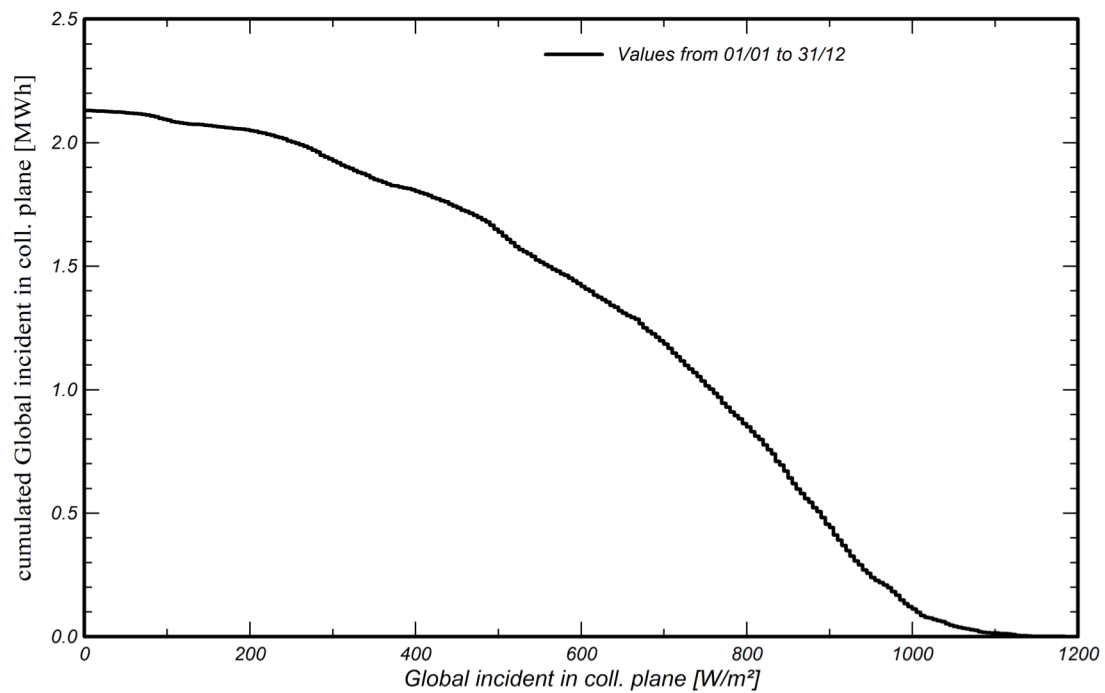


Predef. graphs

Incident Irradiation Distribution



Incident Irradiation cumulative distribution





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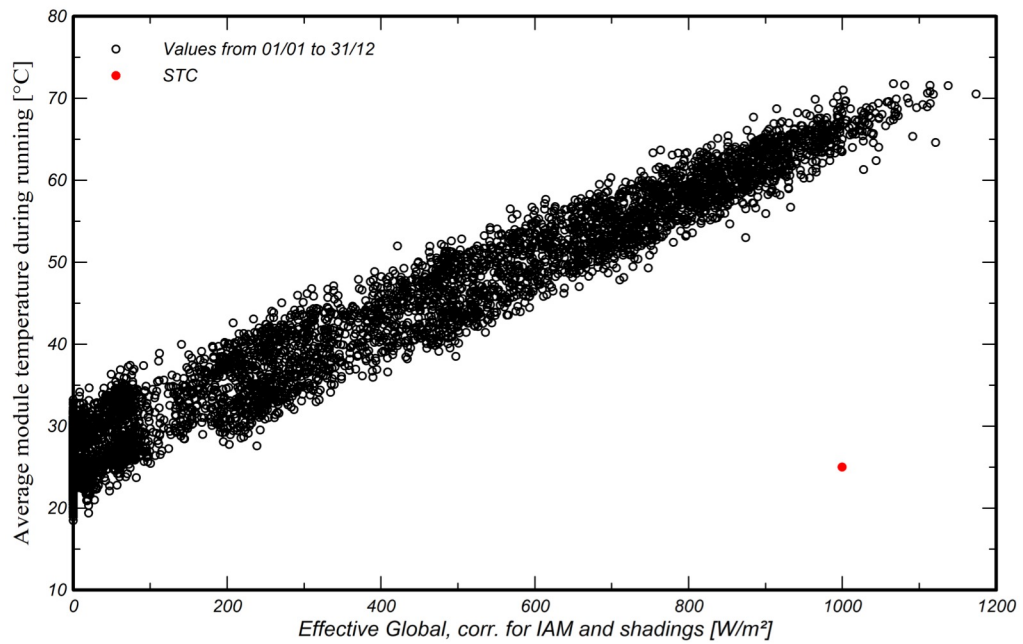
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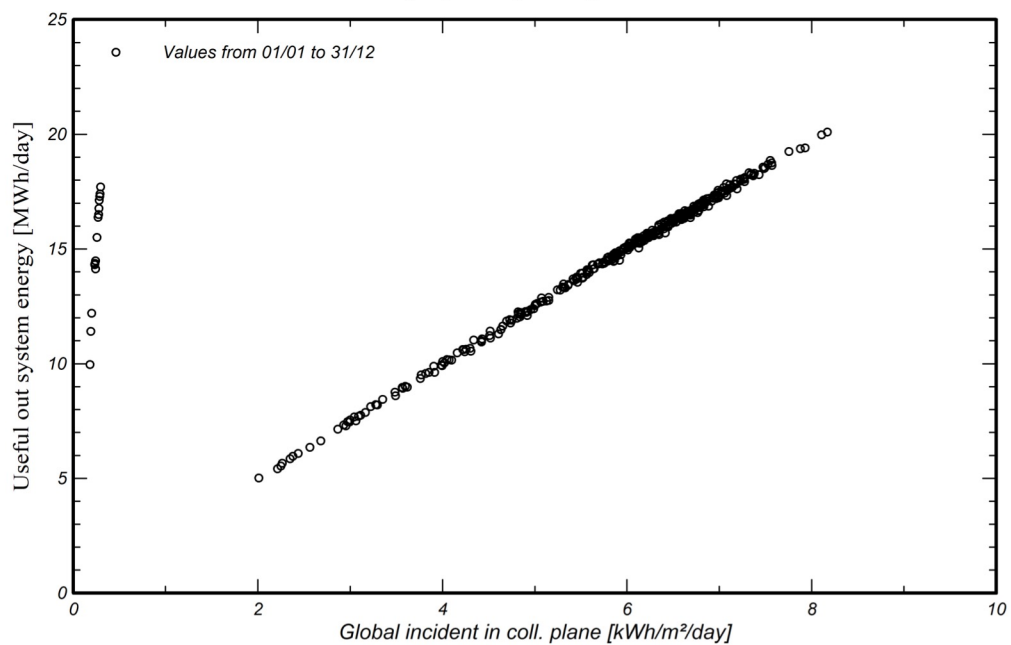


Predef. graphs

Array Temperature vs. Effective Irradiance



Daily Input/Output diagram





PVsyst V8.1.3

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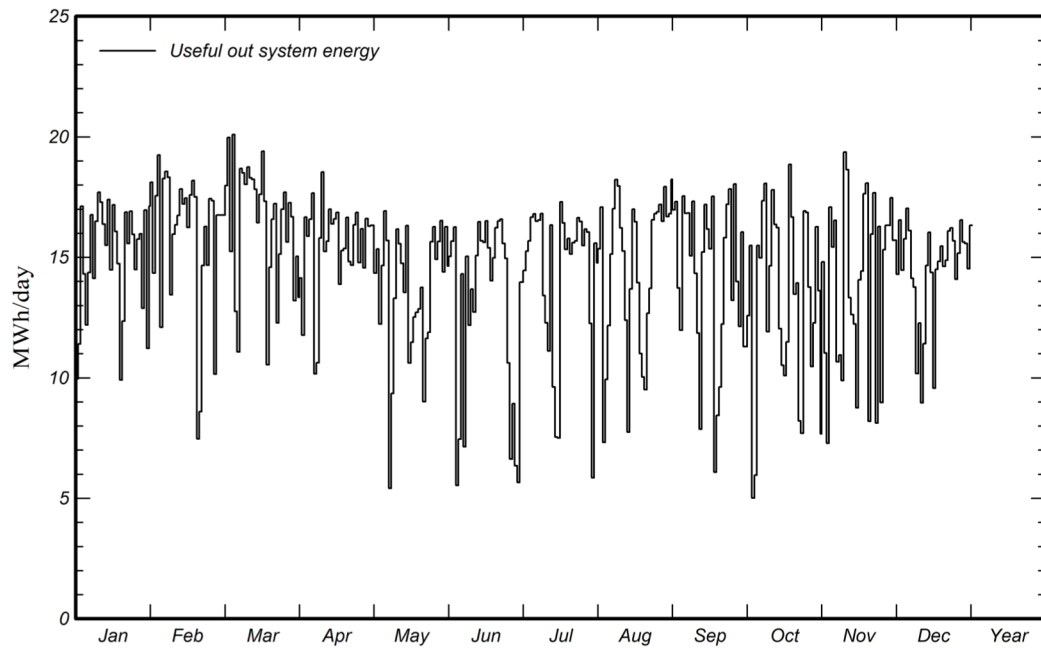
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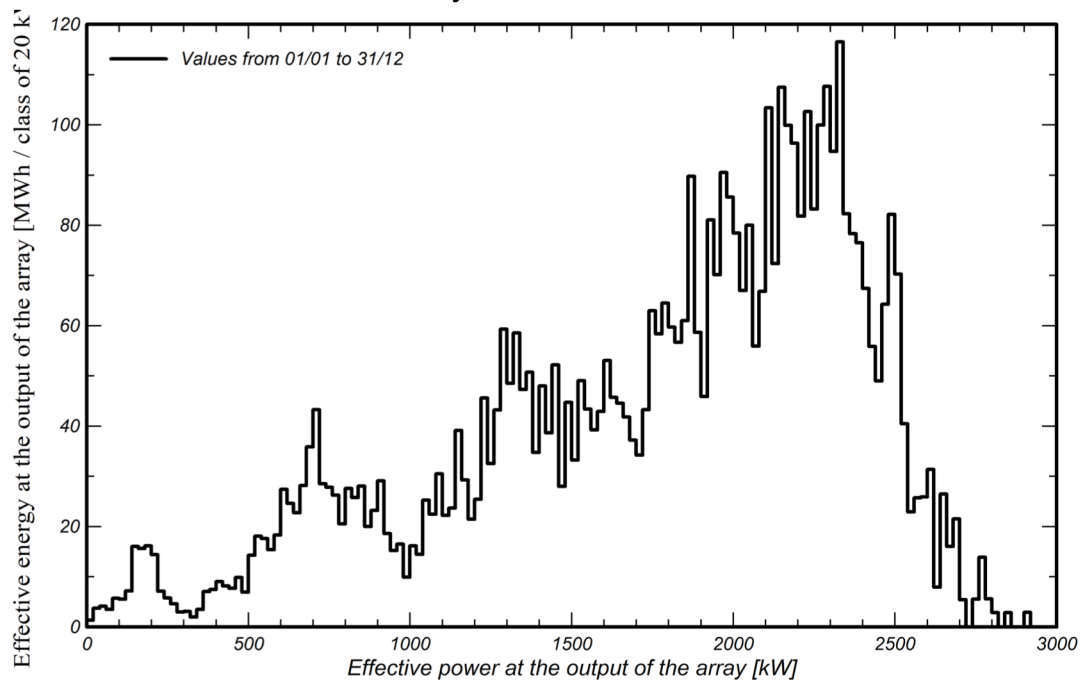


Predef. graphs

Daily System Output Energy



Array Power Distribution





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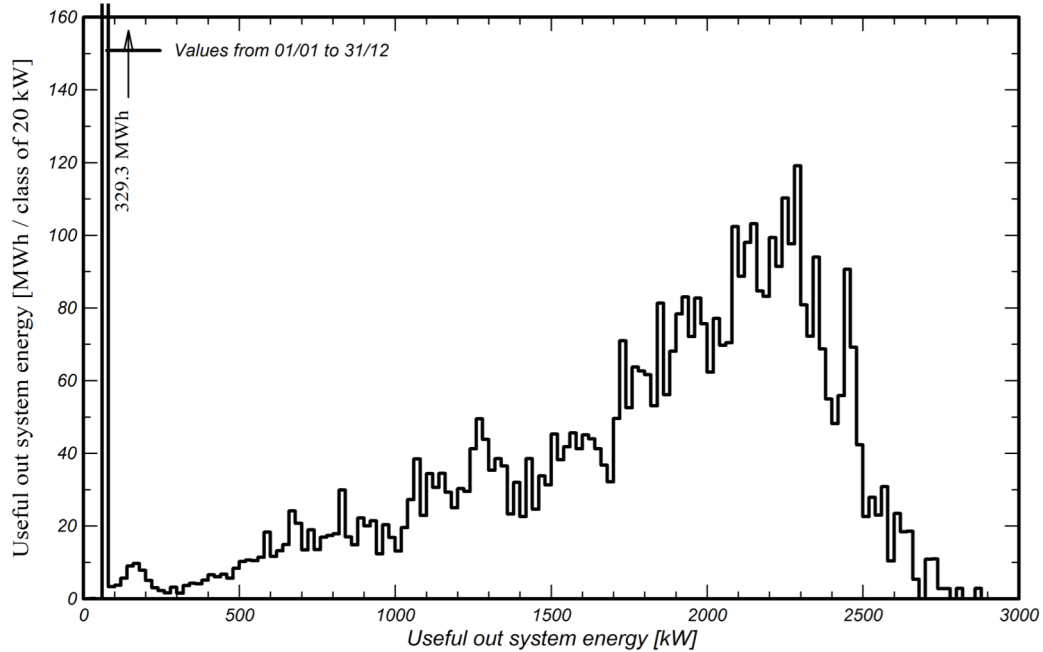
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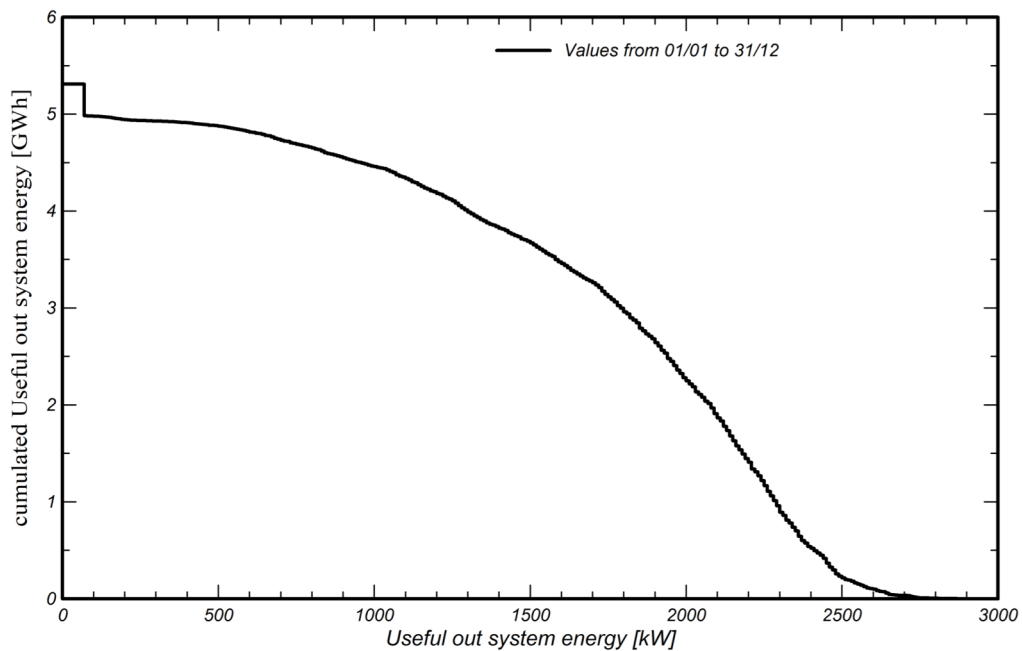


Predef. graphs

System Output Power Distribution



System Output Power cumulative distribution





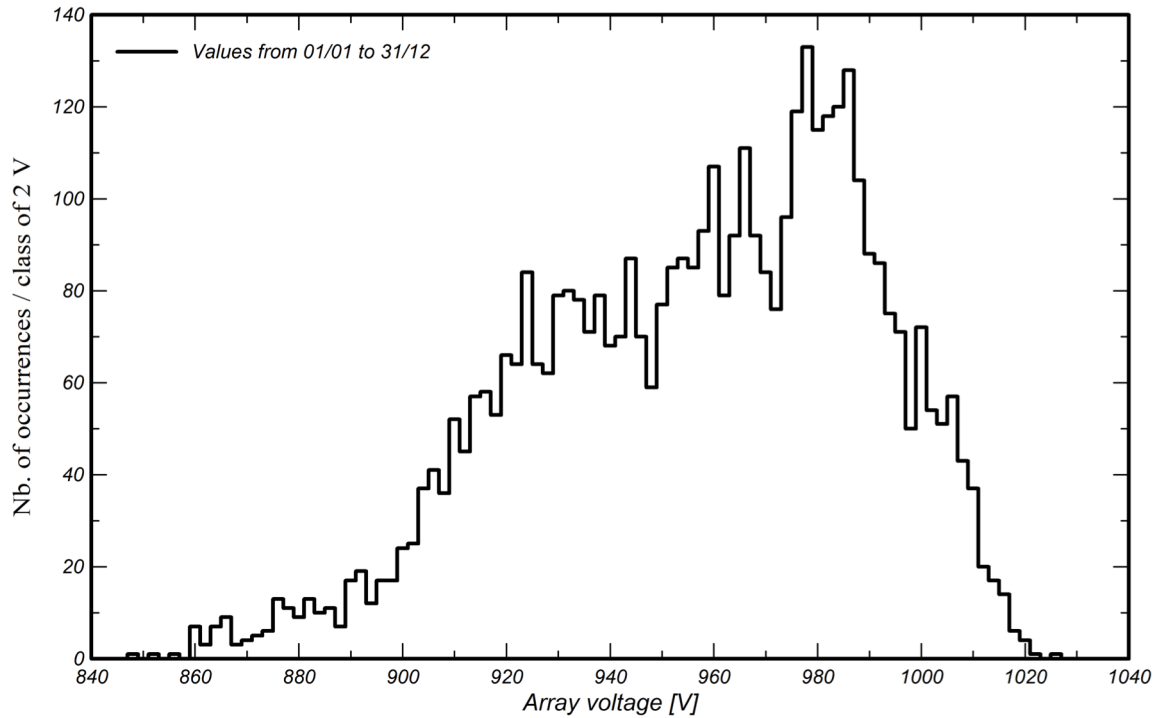
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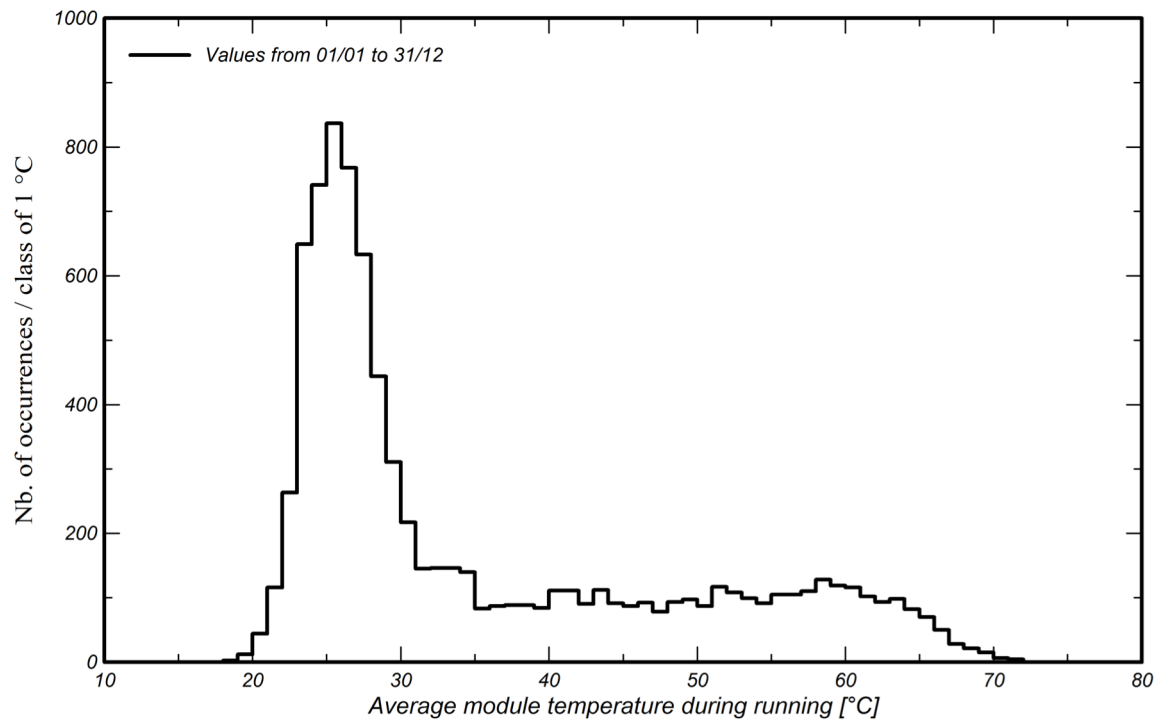
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Pref. graphs

Array Voltage Distribution



Array Temperature Distribution during running





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Ageing Tool

Ageing Parameters

Time span of simulation 25 years

Module average degradation

Loss factor 0.4 %/year

Mismatch due to degradation

Imp RMS dispersion 0.4 %/year

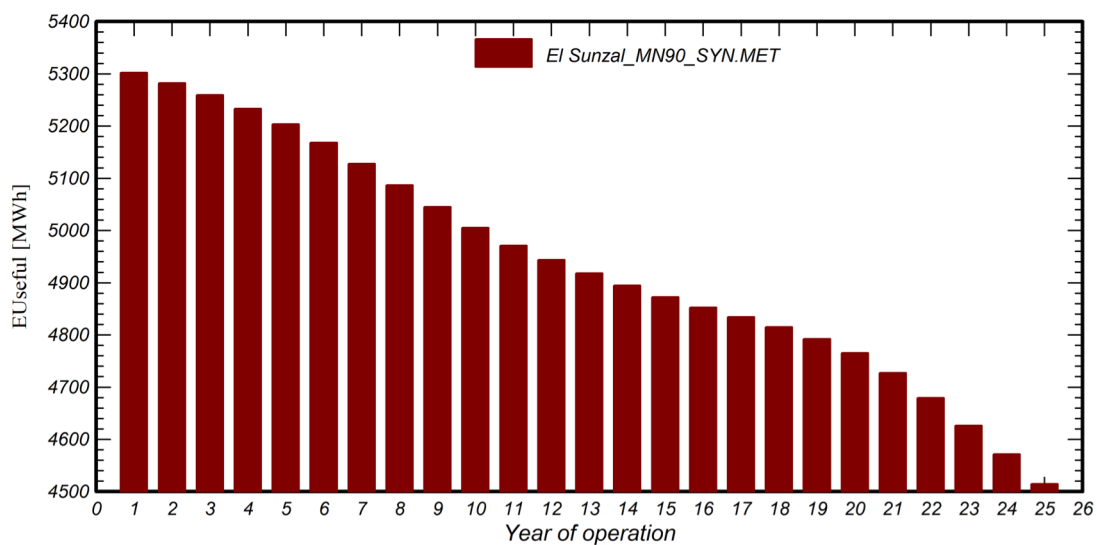
Vmp RMS dispersion 0.4 %/year

Weather data used in the simulation

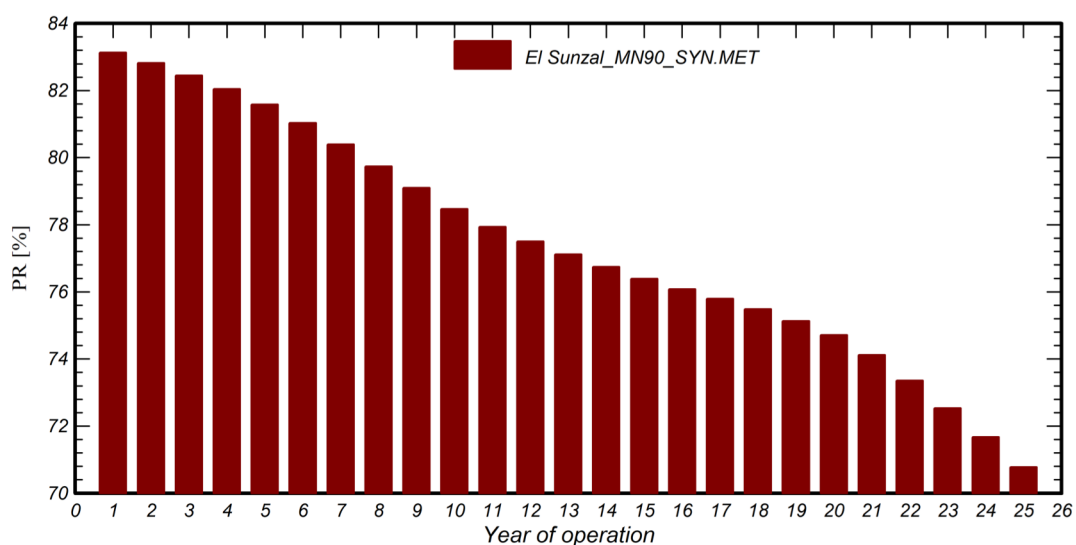
El Sunzal MN90 SYN

Years reference year

Useful out system energy



Performance Ratio





Project: Surf-n-fun

Variant: Neue Simulationsvariante



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Ageing Tool

Ageing Parameters

Time span of simulation 25 years

Module average degradation

Loss factor 0.4 %/year

Mismatch due to degradation

Imp RMS dispersion 0.4 %/year

Vmp RMS dispersion 0.4 %/year

Weather data used in the simulation

EI Sunzal MN90 SYN

Years reference year

	EUseful	E Grid	E User	PR	PR loss
Year	MWh	MWh	MWh	%	%
1	5302	4757	548	83.13	-0.19
2	5282	4738	548	82.82	-0.56
3	5259	4715	548	82.45	-1.00
4	5233	4688	548	82.04	-1.49
5	5203	4659	548	81.58	-2.05
6	5168	4623	548	81.03	-2.71
7	5128	4583	548	80.39	-3.48
8	5086	4542	548	79.74	-4.26
9	5045	4500	548	79.10	-5.02
10	5005	4460	548	78.47	-5.78
11	4971	4426	548	77.94	-6.42
12	4944	4399	548	77.50	-6.95
13	4918	4374	548	77.11	-7.41
14	4895	4350	548	76.74	-7.86
15	4873	4328	548	76.39	-8.28
16	4853	4308	548	76.08	-8.65
17	4834	4290	548	75.79	-9.00
18	4815	4270	548	75.48	-9.37
19	4792	4247	548	75.13	-9.79
20	4765	4220	548	74.71	-10.30
21	4727	4183	548	74.12	-11.00
22	4679	4134	548	73.36	-11.92
23	4627	4082	548	72.53	-12.91
24	4571	4027	548	71.67	-13.95
25	4515	3970	548	70.78	-15.01



Project: Surf-n-fun

Variant: Neue Simulationsvariante



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P50 - P90 evaluation

Weather data

Source Meteoronorm 9.0 dll, Sat=100 %
Kind Monthly averages
Modelliert - Multi-year average
Year-to-year variability(Variance) 2.2 %

Specified Deviation

Climate change 0.0 %

Global variability (weather data + system)

Variability (Quadratic sum) 2.8 %

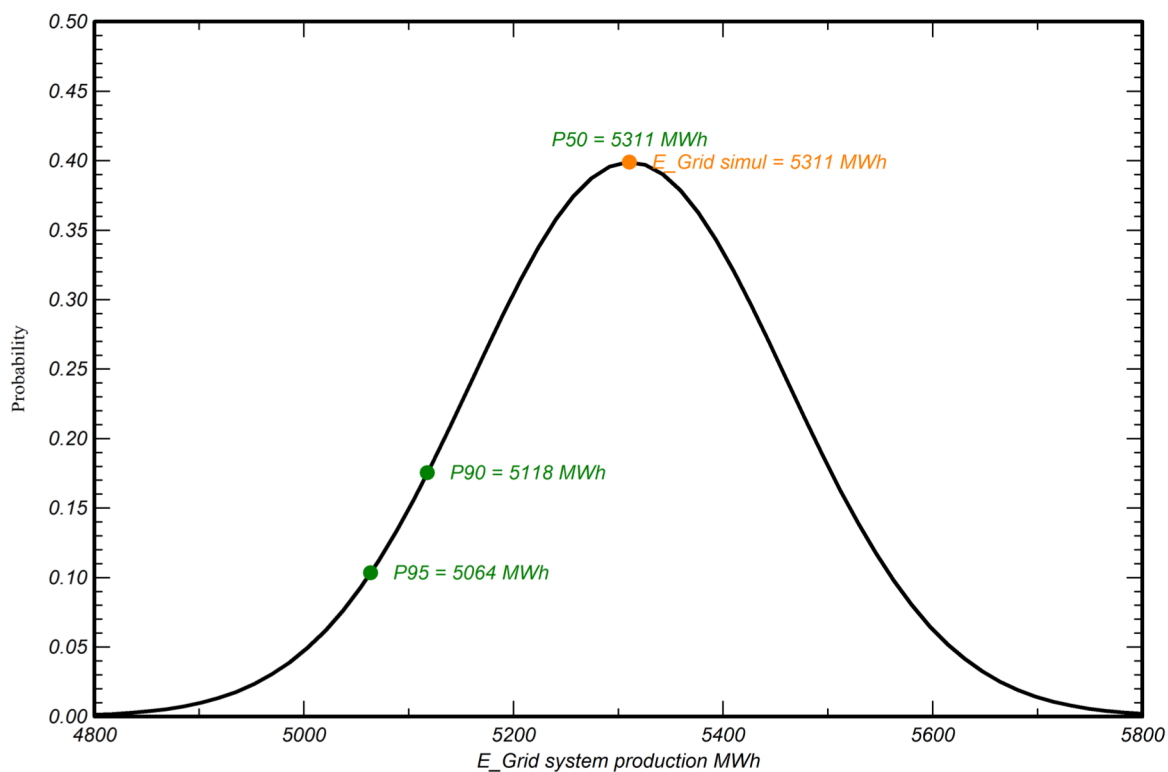
Simulation and parameters uncertainties

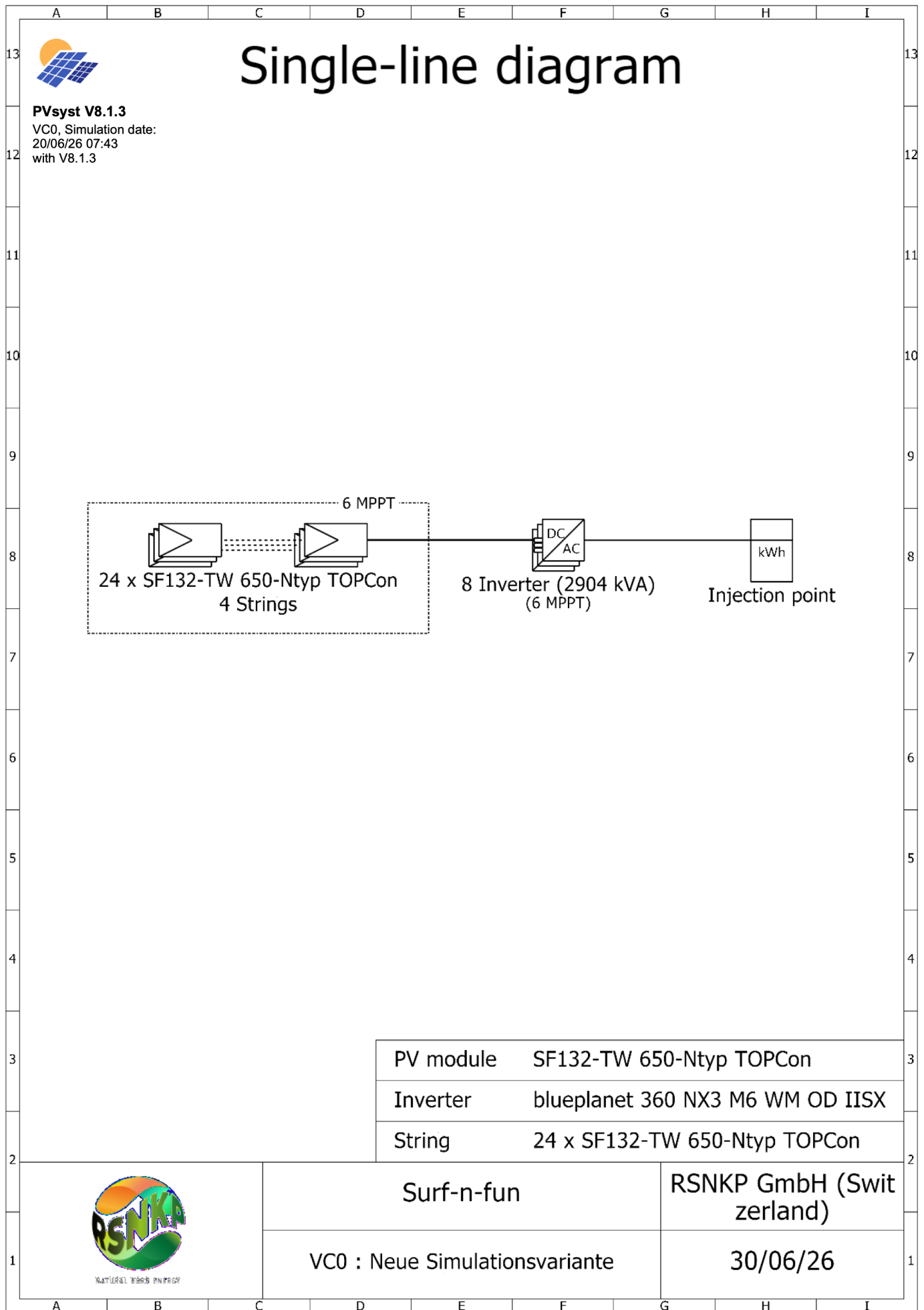
PV module modelling/parameters 1.0 %
Inverter efficiency uncertainty 0.5 %
Soiling and mismatch uncertainties 1.0 %
Degradation uncertainty 1.0 %

Annual production probability

Variability 150 MWh
P50 5311 MWh
P90 5118 MWh
P95 5064 MWh

Probability distribution







PVsyst V8.1.3

VC0, Simulation date:
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Cost of the system

Installation costs

Item	Quantity units	Cost USD	Total USD
PV modules			
SF132-TW 650-Ntyp TOPCon	4608	117.00	539.136.00
Supports for modules	4608	25.35	116.812.80
Inverters			
blueplanet 360 NX3 M6 WM OD IISX	8	8.461.00	67.688.00
Batteries	336	1.850.00	621.600.00
Other components			
Accessories, fasteners	3	30.000.00	90.000.00
Wiring	3	28.600.00	85.800.00
Combiner box	1	29.116.00	29.116.00
Measurement system, pyranometer	1	500.00	500.00
Installation			
Global installation cost per module	4608	34.18	157.501.44
Global installation cost per inverter	8	6.794.00	54.352.00
Global installation cost per battery	336	357.00	119.952.00
Transport	14	16.071.00	224.994.00
Settings	3	16.00	48.00
Grid connection	3	88.000.00	264.000.00
Insurance			
Liability insurance	1	108.900.00	108.900.00
Land costs			
Land purchase	1	108.000.00	108.000.00
		Total	2.588.400.24
		Depreciable asset	1.435.236.80

Operating costs

Item	Total USD/year
Maintenance	
Provision for inverter replacement	13.125.00
Salaries	75.680.00
Repairs	10.053.00
Cleaning	9.450.00
Provision for battery replacement	17.250.00
Insurance	
Facilities insurance	7.765.00
Total (OPEX)	133.323.00
Including inflation (3.00%)	179.121.95

System summary

Total installation cost	2.588.400.24 USD
Operating costs (incl. inflation 3.00%/year)	179.121.95 USD/year
Useful energy from solar	545 MWh/year
Energy sold to the grid	4766 MWh/year
Cost of produced energy (LCOE)	0.0681 USD/kWh



Project: Surf-n-fun
Variant: Neue Simulationsvariante



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Financial analysis

Simulation period

Project lifetime 20 years Start year 2027

Income variation over time

Inflation 3.00 %/year
Module Degradation Ageing tool results
Discount rate 0.00 %/year

Income dependent expenses

Income tax rate 0.00 %/year
Other income tax 0.00 %/year
Dividends 0.00 %/year

Depreciable assets

Asset	Depreciation method	Depreciation period (years)	Salvage value (USD)	Depreciable (USD)
PV modules				
SF132-TW 650-Ntyp TOPCon	Straight-line	20	0.00	539.136.00
Supports for modules	Straight-line	20	0.00	116.812.80
Inverters				
blueplanet 360 NX3 M6 WM OD IISX	Straight-line	20	0.00	67.688.00
Batteries	Straight-line	20	0.00	621.600.00
Accessories, fasteners	Straight-line	20	0.00	90.000.00
		Total	0.00	1.435.236.80

Financing

Own funds 776.520.00 USD
Loan - Redeemable with fixed annuity - 7 years 1.811.880.24 USD Interest rate: 8.50%/year

Electricity sale

Feed-in tariff 0.10000 USD/kWh
Duration of tariff warranty 20 years
Annual connection tax 0.00 USD/year
Annual tariff variation 0.0 %/year
Feed-in tariff decrease after warranty 0.00 %

Self-consumption

Consumption tariff 0.24000 USD/kWh
Tariff evolution 0.0 %/year

Return on investment

Payback period 7.2 years
Net present value (NPV) 4.638.308.58 USD
Internal rate of return (IRR) 21.56 %
Return on investment (ROI) 179.2 %



Project: Surf-n-fun
Variant: Neue Simulationsvariante



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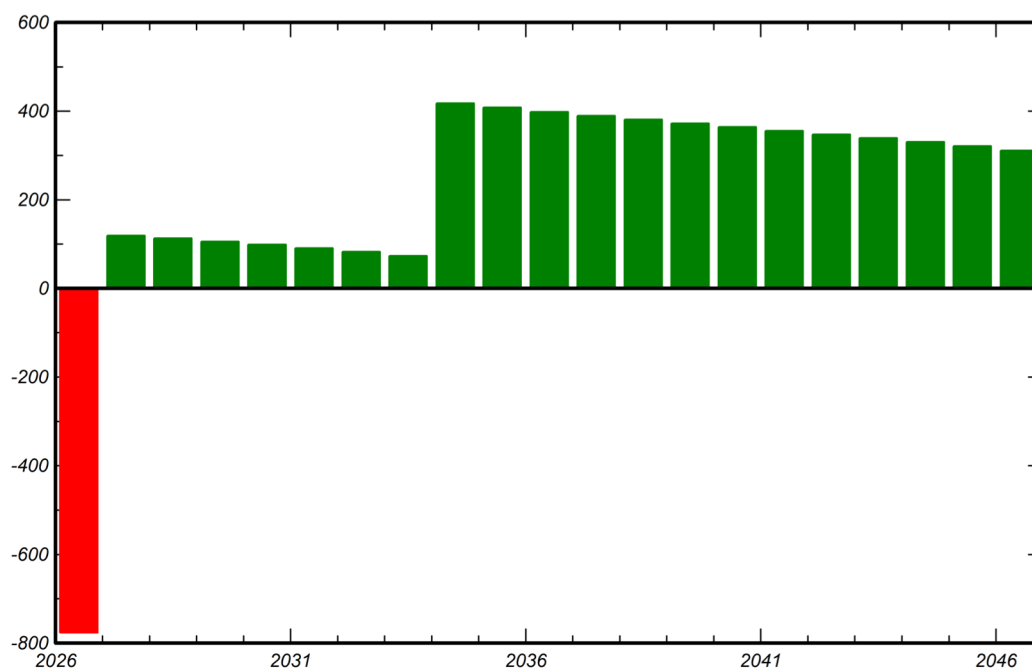
RSNKP GmbH (Switzerland)

Financial analysis

Detailed economic results (USD)

Year	Electricity sale	Own funds	Loan principal	Loan interest	Run. costs	Deprec. allow.	Taxable income	Taxes	After-tax profit	Self-cons. saving	Cumul. profit	% amorti.
0	0	776.520	0	0	0	0	0	0	0	0	-776.520	0.0%
1	475.711	0	199.976	154.010	133.323	71.762	116.616	0	-11.598	130.491	-657.627	12.3%
2	473.937	0	216.974	137.012	137.323	71.762	127.841	0	-17.371	130.004	-544.995	25.1%
3	471.820	0	235.417	118.569	141.442	71.762	140.046	0	-23.608	129.423	-439.180	38.2%
4	469.473	0	255.427	98.559	145.686	71.762	153.467	0	-30.198	128.780	-340.598	51.9%
5	466.841	0	277.138	76.847	150.056	71.762	168.176	0	-37.201	128.057	-249.742	66.1%
6	463.694	0	300.695	53.291	154.558	71.762	184.083	0	-44.850	127.194	-167.398	80.9%
7	460.031	0	326.254	27.732	159.195	71.762	201.343	0	-53.149	126.189	-94.357	96.4%
8	456.312	0	0	0	163.970	71.762	220.579	0	292.341	125.169	323.153	112.5%
9	452.649	0	0	0	168.890	71.762	211.998	0	283.760	124.165	731.077	128.2%
10	449.044	0	0	0	173.956	71.762	203.326	0	275.088	123.176	1.129.341	143.6%
11	446.011	0	0	0	179.175	71.762	195.074	0	266.836	122.344	1.518.521	158.7%
12	443.493	0	0	0	184.550	71.762	187.181	0	258.943	121.653	1.899.117	173.4%
13	441.261	0	0	0	190.087	71.762	179.413	0	251.175	121.041	2.271.332	187.8%
14	439.144	0	0	0	195.789	71.762	171.593	0	243.355	120.460	2.635.147	201.8%
15	437.141	0	0	0	201.663	71.762	163.716	0	235.478	119.911	2.990.536	215.5%
16	435.367	0	0	0	207.713	71.762	155.893	0	227.654	119.424	3.337.614	228.9%
17	433.708	0	0	0	213.944	71.762	148.002	0	219.764	118.969	3.676.347	242.0%
18	431.934	0	0	0	220.363	71.762	139.809	0	211.571	118.482	4.006.400	254.8%
19	429.931	0	0	0	226.973	71.762	131.196	0	202.957	117.933	4.327.290	267.2%
20	427.527	0	0	0	233.783	71.762	121.983	0	193.745	117.273	4.638.309	279.2%
Total	9.005.030	776.520	1.811.880	666.019	3.582.439	1.435.237	3.321.335	0	2.944.692	2.470.137	4.638.309	279.2%

Yearly net profit (kUSD)





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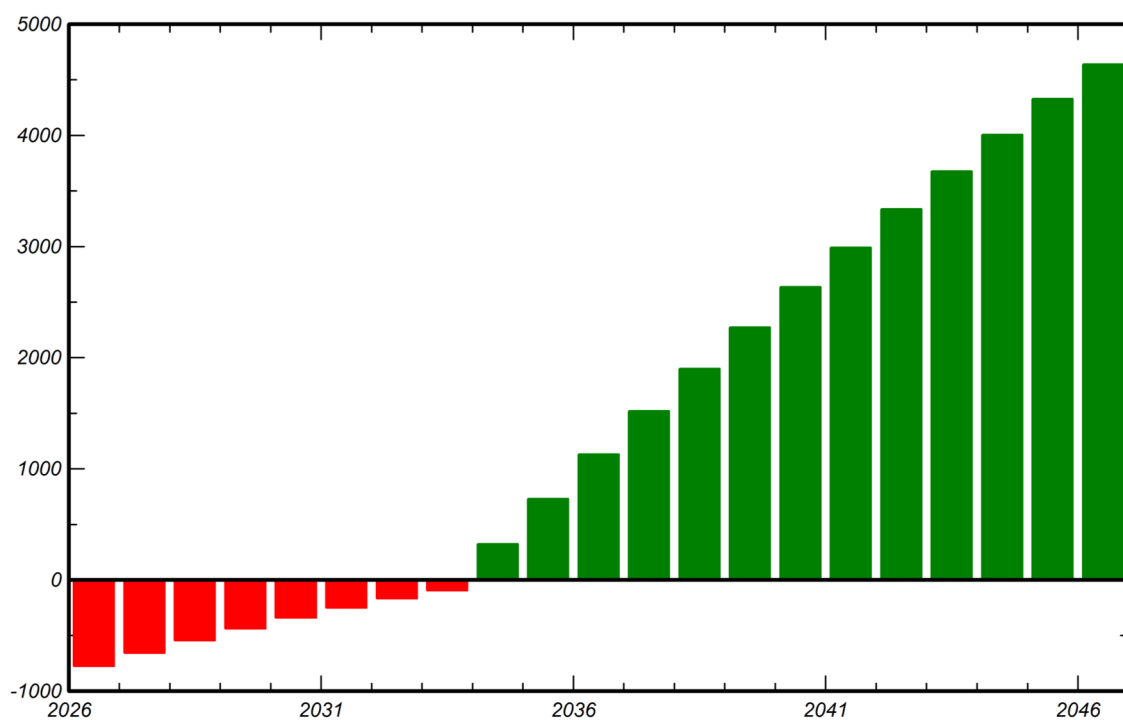
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Project: Surf-n-fun
Variant: Neue Simulationsvariante



RSNKP GmbH (Switzerland)

Financial analysis
Cumulative cashflow (kUSD)





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CO₂ Emission Balance

Total: 30799.7 tCO₂

Generated emissions

Total: 5210.60 tCO₂

Source: Detailed calculation from table below

Replaced Emissions

Total: 41502.5 tCO₂

System production: 5362.08 MWh/yr

Grid Lifecycle Emissions: 258 gCO₂/kWh

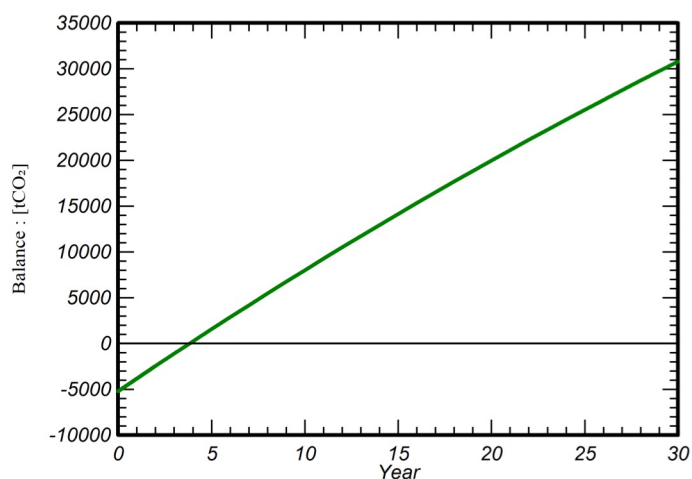
Source: IEA List

Country: El Salvador

Lifetime: 30 years

Annual degradation: 1.0 %

Saved CO₂ Emission vs. Time



System Lifecycle Emissions Details

Item	LCE	Quantity	Subtotal
			[kgCO ₂]
Modules	1713 kgCO ₂ /kWp	2995 kWp	5129939
Supports	1.72 kgCO ₂ /kg	46080 kg	79297
Inverters	170 kgCO ₂ /	8.00	1364

General	
Project title: Financial Feasibility Analysis	El Salvador -Surf-n-fun 3MWp + 1,5MW BESS
Project description:	El Salvador
Date and time:	6/20/2026
Construction phase	6-7 months
Length of operation time	20 year

COMFAR		Cost USD	Persent
1	PV Modul 650WP Solarfabrik	539.136,00 USD	0,0%
2	Supports for modules	116.812,00 USD	0,0%
3	Inverter	67.688,00 USD	0,0%
4	Batteries	621.600,00 USD	
5	Accessories, fasteners	90.000,00 USD	
6	Wiring	85.800,00 USD	
7	Combiner Box	29.116,00 USD	0,0%
8	Measurement system, pyranometer	500,00 USD	
9	Global installation cost per module	157.501,00 USD	0,0%
10	Global installation cost per inverter	54.352,00 USD	
11	Global installation cost per battery	119.952,00 USD	
12	Transport	224.994,00 USD	0,0%
13	Settings	49,00 USD	0,0%
14	Grid connection	264.000,00 USD	0,0%
15	Liability insurance	108.900,00 USD	
16	Land costs + PPA + development	108.000,00 USD	0,0%

Total	2.588.400,00 USD
--------------	-------------------------

Sources of Finance	Shares	
Own funds. Equity	776.520,00 USD	30%
Loan - Redeemable	1.811.880,00 USD	70%
Net of interest 7 years		8,50%

Payback period	7,2 years
Net present value (NPV)	4.638.308,00 USD
Internal rate of return (IRR)	21,56%
Return on investment (ROI)	179,20%
Cost of produced energy (LCOE)	0,0681 USD/kWh

Comfar data input

Operating costs - Maintenance	cost
Provision for inverter replacement	\$13.125,00
Salaries	\$75.680,00
Repairs	\$10.053,00
Cleaning	\$9.450,00
Provision for battery replacement	\$17.250,00
Insurance	\$7.765,00
ANNUAL COSTS OF PRODUCTS - TOTAL	\$133.323,00

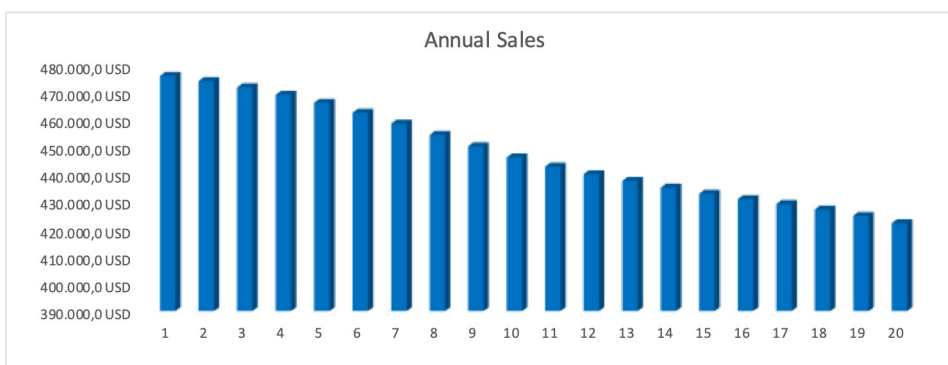
Including inflation (3.00%) **\$179.121,00**

year	Provision for inverter replacement	Salaries	Repairs	Cleaning	Provision for battery replacement	Insurance	Total run costs	Sales
1	13.125,00 USD	75.680,00 USD	10.053,00 USD	9.450,00 USD	17.250,00 USD	7.765,00 USD	133.323,00 USD	607.220,00 USD
2	13.518,75 USD	77.950,40 USD	10.354,59 USD	9.733,50 USD	17.767,50 USD	7.997,95 USD	137.322,69 USD	605.320,00 USD
3	13.924,31 USD	80.288,91 USD	10.665,23 USD	10.025,51 USD	18.300,53 USD	8.237,89 USD	141.442,37 USD	603.020,00 USD
4	14.342,04 USD	82.697,58 USD	10.985,18 USD	10.326,27 USD	18.849,54 USD	8.485,03 USD	145.685,64 USD	600.320,00 USD
5	14.772,30 USD	85.178,51 USD	11.314,74 USD	10.636,06 USD	19.415,03 USD	8.739,58 USD	150.056,21 USD	597.420,00 USD
6	15.215,47 USD	87.733,86 USD	11.654,18 USD	10.955,14 USD	19.997,48 USD	9.001,76 USD	154.557,90 USD	593.820,00 USD
7	15.671,94 USD	90.365,88 USD	12.003,81 USD	11.283,79 USD	20.597,40 USD	9.271,82 USD	159.194,63 USD	589.820,00 USD
8	16.142,09 USD	93.076,85 USD	12.363,92 USD	11.622,31 USD	21.215,32 USD	9.549,97 USD	163.970,47 USD	585.720,00 USD
9	16.626,36 USD	95.869,16 USD	12.734,84 USD	11.970,98 USD	21.851,78 USD	9.836,47 USD	168.889,59 USD	581.520,00 USD
10	17.125,15 USD	98.745,23 USD	13.116,88 USD	12.330,11 USD	22.507,34 USD	10.131,56 USD	173.956,28 USD	577.520,00 USD
11	17.638,90 USD	101.707,59 USD	13.510,39 USD	12.700,01 USD	23.182,56 USD	10.435,51 USD	179.174,96 USD	574.120,00 USD
12	18.168,07 USD	104.758,82 USD	13.915,70 USD	13.081,01 USD	23.878,03 USD	10.748,58 USD	184.550,21 USD	571.420,00 USD
13	18.713,11 USD	107.901,58 USD	14.333,17 USD	13.473,44 USD	24.594,38 USD	11.071,03 USD	190.086,72 USD	568.920,00 USD
14	19.274,50 USD	111.138,63 USD	14.763,17 USD	13.877,64 USD	25.332,21 USD	11.403,16 USD	195.789,32 USD	566.520,00 USD
15	19.852,74 USD	114.472,79 USD	15.206,06 USD	14.293,97 USD	26.092,17 USD	11.745,26 USD	201.663,00 USD	564.320,00 USD
16	20.448,32 USD	117.906,97 USD	15.662,25 USD	14.722,79 USD	26.874,94 USD	12.097,62 USD	207.712,89 USD	562.320,00 USD
17	21.061,77 USD	121.444,18 USD	16.132,11 USD	15.164,48 USD	27.681,19 USD	12.460,55 USD	213.944,28 USD	560.520,00 USD
18	21.693,63 USD	125.087,51 USD	16.616,08 USD	15.619,41 USD	28.511,62 USD	12.834,36 USD	220.362,60 USD	558.520,00 USD
19	22.344,43 USD	128.840,13 USD	17.114,56 USD	16.087,99 USD	29.366,97 USD	13.219,39 USD	226.973,48 USD	556.220,00 USD
20	23.014,77 USD	132.705,34 USD	17.628,00 USD	16.570,63 USD	30.247,98 USD	13.615,97 USD	233.782,69 USD	553.520,00 USD

Row	PV . Production capacity per year	sales price per GWh	Annual Sales
1	4.757,00 MWh	100,00 USD	475.700,0 USD
2	4.738,00 MWh	100,00 USD	473.800,0 USD
3	4.715,00 MWh	100,00 USD	471.500,0 USD
4	4.688,00 MWh	100,00 USD	468.800,0 USD
5	4.659,00 MWh	100,00 USD	465.900,0 USD
6	4.623,00 MWh	100,00 USD	462.300,0 USD
7	4.583,00 MWh	100,00 USD	458.300,0 USD
8	4.542,00 MWh	100,00 USD	454.200,0 USD
9	4.500,00 MWh	100,00 USD	450.000,0 USD
10	4.460,00 MWh	100,00 USD	446.000,0 USD
11	4.426,00 MWh	100,00 USD	442.600,0 USD
12	4.399,00 MWh	100,00 USD	439.900,0 USD
13	4.374,00 MWh	100,00 USD	437.400,0 USD
14	4.350,00 MWh	100,00 USD	435.000,0 USD
15	4.328,00 MWh	100,00 USD	432.800,0 USD
16	4.308,00 MWh	100,00 USD	430.800,0 USD
17	4.290,00 MWh	100,00 USD	429.000,0 USD
18	4.270,00 MWh	100,00 USD	427.000,0 USD
19	4.247,00 MWh	100,00 USD	424.700,0 USD
20	4.220,00 MWh	100,00 USD	422.000,0 USD

Row	BESS-Production capacity per year	sales price per GWh	Annual Sales
1	548,00 MWh	240,00 USD	131.520,0 USD
2	548,00 MWh	240,00 USD	131.520,0 USD
3	548,00 MWh	240,00 USD	131.520,0 USD
4	548,00 MWh	240,00 USD	131.520,0 USD
5	548,00 MWh	240,00 USD	131.520,0 USD
6	548,00 MWh	240,00 USD	131.520,0 USD
7	548,00 MWh	240,00 USD	131.520,0 USD
8	548,00 MWh	240,00 USD	131.520,0 USD
9	548,00 MWh	240,00 USD	131.520,0 USD
10	548,00 MWh	240,00 USD	131.520,0 USD
11	548,00 MWh	240,00 USD	131.520,0 USD
12	548,00 MWh	240,00 USD	131.520,0 USD
13	548,00 MWh	240,00 USD	131.520,0 USD
14	548,00 MWh	240,00 USD	131.520,0 USD
15	548,00 MWh	240,00 USD	131.520,0 USD
16	548,00 MWh	240,00 USD	131.520,0 USD
17	548,00 MWh	240,00 USD	131.520,0 USD
18	548,00 MWh	240,00 USD	131.520,0 USD
19	548,00 MWh	240,00 USD	131.520,0 USD
20	548,00 MWh	240,00 USD	131.520,0 USD

Total Annual Sales
607.220,0 USD
605.320,0 USD
603.020,0 USD
600.320,0 USD
597.420,0 USD
593.820,0 USD
589.820,0 USD
585.720,0 USD
581.520,0 USD
577.520,0 USD
574.120,0 USD
571.420,0 USD
568.920,0 USD
566.520,0 USD
564.320,0 USD
562.320,0 USD
560.520,0 USD
558.520,0 USD
556.220,0 USD
553.520,0 USD



ATTENTION: Please note that the PVSYST interpretation does not take into account the 30% income tax from the 11th year onwards. In the Comfar economics interpretation, this is included in the calculation, and complete, true, final IRR and ROI figures and the corresponding tables are created, which will differ from the PVYST calculation.

Total invest	2588400							
30%	776520							
70%	1811880							
Years	1	2	3	4	5	6	7	
Loan amount	1811880	1553040	1294200	1035360	776520	517680	258400	
Loan Paymant	199976	216974	235417	255427	277138	300695	326254	
Loan Intrest 8,5%	154010	137012	118569	98559	76847	53291	27732	
Finance Cost	353986	353986	353986	353986	353985	353986	353986	
Run costs	133323	137323	141442	145686	150056	154558	15995	
Total costs	487309	491309	495428	499672	504041	508544	369981	
sale	607220	605320	603020	600320	597420	593820	589820	
Gross Profit	119911	114011	107592	100648	93379	85276	219839	
Taxable Income	116616	127841	140046	153467	168176	184083	201343	
30% incoming Tax								
After Tax Profit								

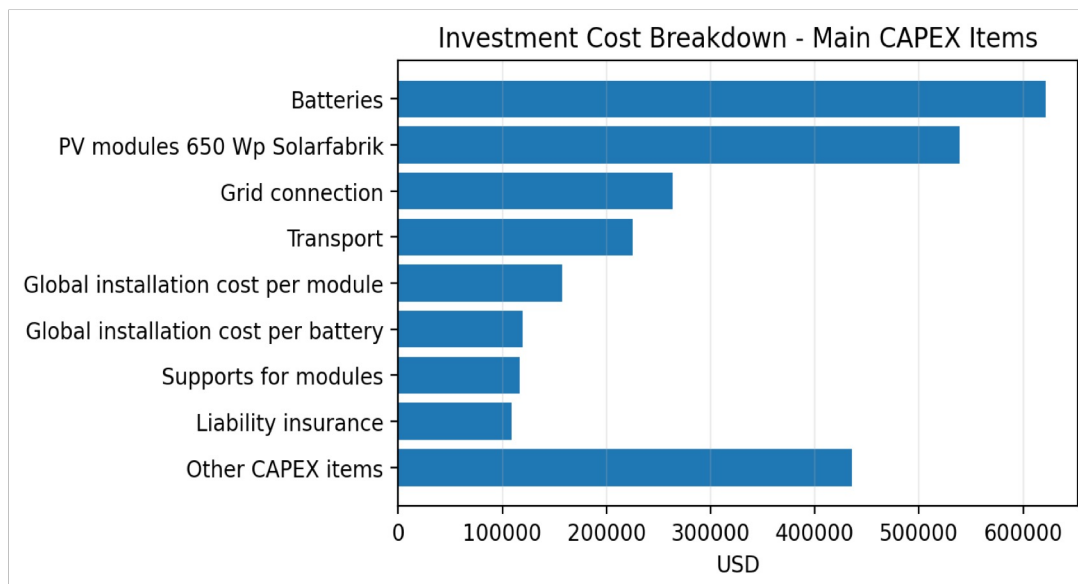
Years	8	9	10	11	12	13	14	
Loan amount	0	0	0	0	0	0	0	
Loan Paymant	0	0	0	0	0	0	0	
Loan Intrest 8,5%	0	0	0	0	0	0	0	
Finance Cost	0	0	0	0	0	0	0	
Run costs	163970	168890	173956	179175	184550	190087	195789	
sale	585720	581520	574120	571420	568920	566520	564320	
Gross Profit	421750	412630	400164	392245	384370	376433	368531	
Taxable Income	220579	211998	203326	195074	187181	179413	171593	
30% incoming Tax				58522	56154	53824	51478	
After Tax Profit				333723	328216	322609	317053	

Years	15	16	17	18	19	20		
Loan amount	0	0	0	0	0	0		
Loan Paymant	0	0	0	0	0	0		
Loan Intrest 8,5%	0	0	0	0	0	0		
Finance Cost	0	0	0	0	0	0		
Run costs	201663	207713	213994	220363	226973	233783		
sale	562320	560320	560520	558520	556220	553520		
Gross Profit	360657	352607	346526	338157	329247	319737		
Taxable Income	163716	155893	148002	139809	131196	121983		
30% incoming Tax	49115	46768	44401	41943	39359	36595		
After Tax Profit	311542	305839	302125	296214	289888	283142		

Financial Feasibility Study

3 MWp Photovoltaic Power Plant + 1.5 MW Battery Energy Storage System (BESS) Surf-n-Fun Project - El Salvador

Project Parameter	Value
PV Capacity	3.00 MWp
BESS Backup Capacity	1.50 MW
Total Capital Investment	USD 2,588,400
Financing	30% Equity / 70% Senior Project Debt
Loan Interest Rate	8.50%
Operating Period	20 Years
Corporate Income Tax	0% Years 1-10; 30% from Year 11
Final IRR / ROI / Payback	19.33% / 159.90% / 7.7 Years



2. Executive Summary

This Financial Feasibility Study evaluates the technical and financial viability of the proposed renewable energy investment using internationally accepted project finance evaluation principles.

The Surf-n-Fun Renewable Energy Project consists of a 3.00 MWp photovoltaic power plant integrated with a 1.50 MW Battery Energy Storage System in El Salvador.

The total capital investment amounts to USD 2,588,400, financed by 30% equity and 70% senior project debt. The financing assumes a fixed interest rate of 8.50% and full repayment over seven operating years.

The project benefits from a corporate income tax holiday during the first ten operating years. From Operating Year 11, corporate income tax is applied at 30% of Profit Before Tax.

Key Financial Indicator	Final Value
Total Capital Investment	USD 2,588,400
Equity Contribution	USD 776,520
Senior Project Debt	USD 1,811,880
Debt Term	7 Years
Corporate Income Tax Holiday	Years 1-10
Corporate Income Tax	30% on PBT from Year 11
Internal Rate of Return (IRR)	19.33%
Return on Investment (ROI)	159.90%
Payback Period	7.7 Years

The revised analysis confirms that the project remains financially viable after introducing corporate taxation from Year 11. The final IRR of 19.33%, ROI of 159.90% and payback period of approximately 7.7 years demonstrate a robust financial profile.

3. Project Description and Basis

The proposed Surf-n-Fun Renewable Energy Project is located in El Salvador and comprises the installation of a grid-connected photovoltaic power plant integrated with battery energy storage.

The hybrid configuration supports clean electricity generation, improved energy reliability and stronger operational flexibility by combining solar generation with storage capability.

Item	Specification
Project Location	El Salvador
Technology	Grid-connected Solar PV + BESS
Installed PV Capacity	3.00 MWp
Battery Storage Capacity	1.50 MW BESS
Expected Operating Life	20 Years
Financial Evaluation Period	20 Years

The financial evaluation is based on the final investment budget, updated financing structure, revised debt repayment schedule and taxation assumptions.

The project benefits include renewable energy generation, battery-supported grid reliability, stable operating cash flows and long-term shareholder value creation.

4. Investment Cost Analysis

The capital investment required for development amounts to USD 2,588,400.

Investment Category	Amount	Share
PV Modules 650 Wp Solarfabrik	USD 539,136	20.83%
Mounting Structures	USD 116,812	4.51%
Inverters	USD 67,688	2.62%
Battery Energy Storage System	USD 621,600	24.01%
Accessories and Fasteners	USD 90,000	3.48%
Wiring	USD 85,800	3.31%
Combiner Boxes	USD 29,116	1.12%
Measurement System / Pyranometer	USD 500	0.02%
Global Installation Cost per Module	USD 157,501	6.08%
Global Installation Cost per Inverter	USD 54,352	2.10%
Global Installation Cost per Battery	USD 119,952	4.63%
Transport	USD 224,994	8.69%
Settings / Commissioning	USD 49	0.00%
Grid Connection	USD 264,000	10.20%
Liability Insurance	USD 108,900	4.21%
Land Costs + PPA + Development	USD 108,000	4.17%
TOTAL CAPITAL INVESTMENT	USD 2,588,400	100.00%

The BESS represents the largest individual investment component and enhances operational flexibility. The PV generation system and storage assets form the core of long-term revenue capability.

5. Financing Structure and Loan Repayment

The project is financed by shareholder equity and senior project debt. The structure balances shareholder returns with prudent leverage and debt service capacity.

Financing Source	Amount	Share
Shareholder Equity	USD 776,520	30%
Senior Project Debt	USD 1,811,880	70%
Total Project Investment	USD 2,588,400	100%

Year	Opening Loan	Principal	Interest	Finance Cost
2027	USD 1,811,880	USD 199,976	USD 154,010	USD 353,986
2028	USD 1,553,040	USD 216,974	USD 137,012	USD 353,986
2029	USD 1,294,200	USD 235,417	USD 118,569	USD 353,986
2030	USD 1,035,360	USD 255,427	USD 98,559	USD 353,986
2031	USD 776,520	USD 277,138	USD 76,847	USD 353,985
2032	USD 517,680	USD 300,695	USD 53,291	USD 353,986
2033	USD 258,400	USD 326,254	USD 27,732	USD 353,986
Total		USD 1,811,881	USD 666,020	USD 2,477,901

The debt is fully repaid after seven operating years. From Year 8 onward, the project enters a debt-free operating phase.

6. Twenty-Year Financial Projection

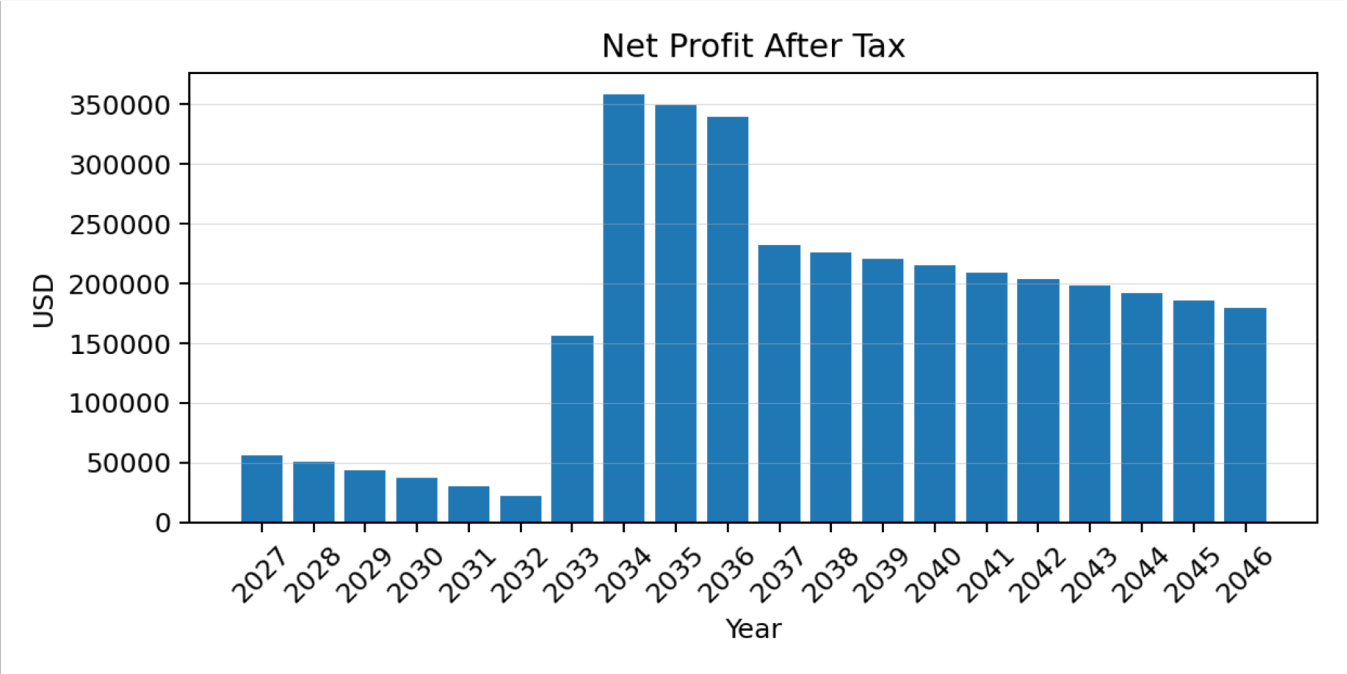
The projection presents expected operating performance over twenty years and includes the tax holiday during Years 1-10 and 30% corporate income tax on PBT from Year 11 onward.

Year	Sales	OPEX	Finance	PBT	Income Tax	NPAT
2027	USD 543,652	USD 133,323	USD 353,986	USD 56,343	USD 0	USD 56,343
2028	USD 541,752	USD 137,323	USD 353,986	USD 50,443	USD 0	USD 50,443
2029	USD 539,452	USD 141,442	USD 353,986	USD 44,024	USD 0	USD 44,024
2030	USD 536,752	USD 145,686	USD 353,986	USD 37,080	USD 0	USD 37,080
2031	USD 533,852	USD 150,056	USD 353,985	USD 29,811	USD 0	USD 29,811
2032	USD 530,252	USD 154,558	USD 353,986	USD 21,708	USD 0	USD 21,708
2033	USD 526,252	USD 15,995	USD 353,986	USD 156,271	USD 0	USD 156,271
2034	USD 522,152	USD 163,970	USD 0	USD 358,182	USD 0	USD 358,182
2035	USD 517,952	USD 168,890	USD 0	USD 349,062	USD 0	USD 349,062
2036	USD 513,952	USD 173,956	USD 0	USD 339,996	USD 0	USD 339,996
2037	USD 510,552	USD 179,175	USD 0	USD 331,377	USD 99,413	USD 231,964
2038	USD 507,852	USD 184,550	USD 0	USD 323,302	USD 96,991	USD 226,311
2039	USD 505,352	USD 190,087	USD 0	USD 315,265	USD 94,580	USD 220,685
2040	USD 502,952	USD 195,789	USD 0	USD 307,163	USD 92,149	USD 215,014
2041	USD 500,752	USD 201,663	USD 0	USD 299,089	USD 89,727	USD 209,362
2042	USD 498,752	USD 207,713	USD 0	USD 291,039	USD 87,312	USD 203,727
2043	USD 496,952	USD 213,994	USD 0	USD 282,958	USD 84,887	USD 198,071
2044	USD 494,952	USD 220,363	USD 0	USD 274,589	USD 82,377	USD 192,212
2045	USD 492,652	USD 226,973	USD 0	USD 265,679	USD 79,704	USD 185,975
2046	USD 489,952	USD 233,783	USD 0	USD 256,169	USD 76,851	USD 179,318
Total	USD 10,306,740	USD 3,439,289	USD 2,477,901	USD 4,389,550	USD 883,991	USD 3,505,559

PBT corresponds to annual gross profit after operating and financing costs. NPAT reflects corporate income tax from Year 11 onward.

7. Cash Flow Analysis

Cash flow is the primary indicator of liquidity and investment recovery. The model confirms positive annual NPAT throughout the operating period.

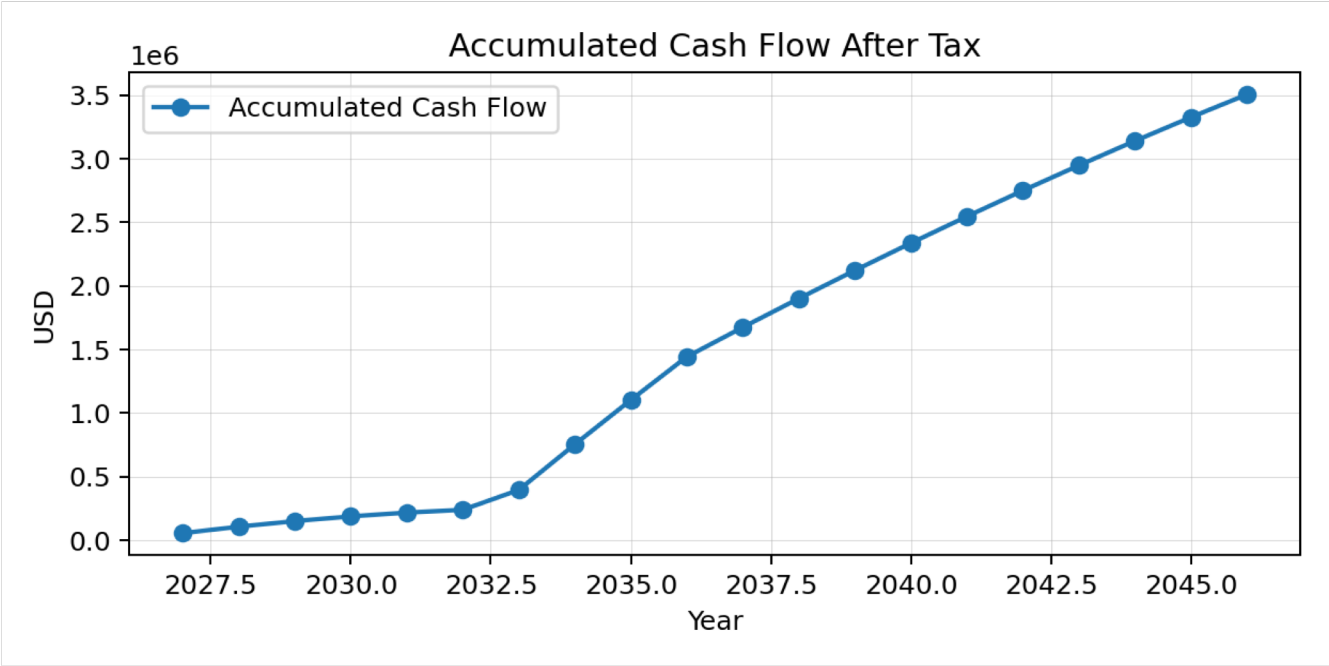


Metric	Result
Total Sales Revenue	USD 10,306,740
Total OPEX	USD 3,439,289
Total Finance Cost	USD 2,477,901
Total Income Tax	USD 883,991
Total NPAT	USD 3,505,559

The project has three phases: debt service during Years 1-7, maximum free cash flow during Years 8-10, and tax-adjusted operation from Year 11 onward.

8. Accumulated Cash Flow Analysis

Accumulated cash flow illustrates progressive investment recovery and long-term shareholder value creation after financing and income tax.



The model indicates a payback period of approximately 7.7 years. Accumulated cash flow continues to increase after income tax begins in Year 11.

Indicator	Assessment
Investment Recovery	7.7 Years
Debt Repayment	Completed after Year 7
Tax Holiday	Years 1-10
Taxation	30% on PBT from Year 11
Long-Term Cash Flow	Positive

9. Profitability Analysis

The profitability assessment evaluates project performance using investment indicators widely applied in renewable energy and infrastructure financing.

Financial Indicator	Final Result
Internal Rate of Return (IRR)	19.33%
Return on Investment (ROI)	159.90%
Payback Period	7.7 Years
Corporate Income Tax Holiday	10 Years
Corporate Income Tax	30% from Year 11
Project Evaluation Period	20 Years

The achieved IRR substantially exceeds the assumed financing cost. Taxation reduces annual profitability after Year 10 but does not compromise overall financial feasibility.

10. Financial Risk Assessment and Bankability

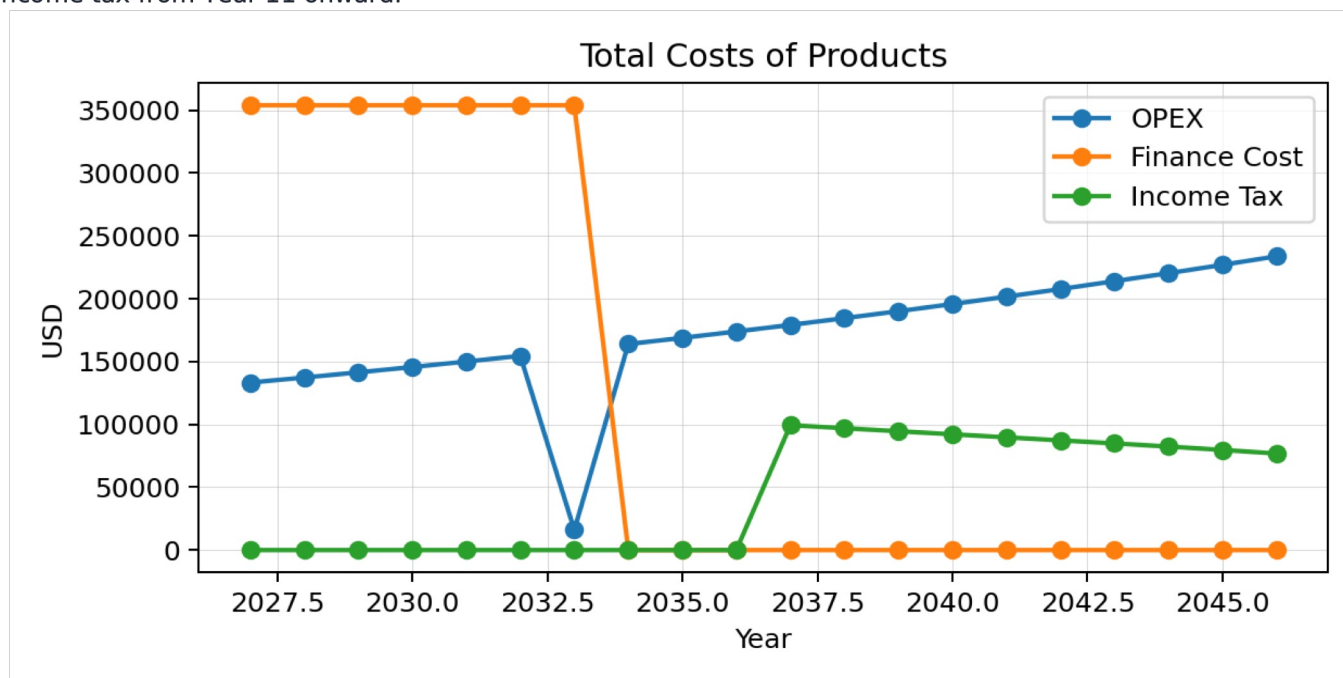
The project demonstrates a balanced financial risk profile supported by stable operating revenues, conservative debt financing and predictable long-term cash generation.

Risk Category	Assessment	Mitigation
Construction Cost	Low	Investment budget based on supplier and engineering estimates
Financing Risk	Low	Fixed interest rate and defined repayment schedule
Revenue Risk	Medium	Long-term electricity sales assumptions
Operating Cost Risk	Low	OPEX escalation reflected in model
Corporate Income Tax	Medium	Tax holiday strengthens early cash generation
Long-Term Profitability	Low	Positive margins maintained over project life

No material financial weaknesses have been identified within the assumptions adopted for this study. The project demonstrates characteristics consistent with commercial project financing, subject to customary due diligence.

11. Total Costs of Products

Total costs include operating expenditure, finance costs during the debt repayment period and corporate income tax from Year 11 onward.

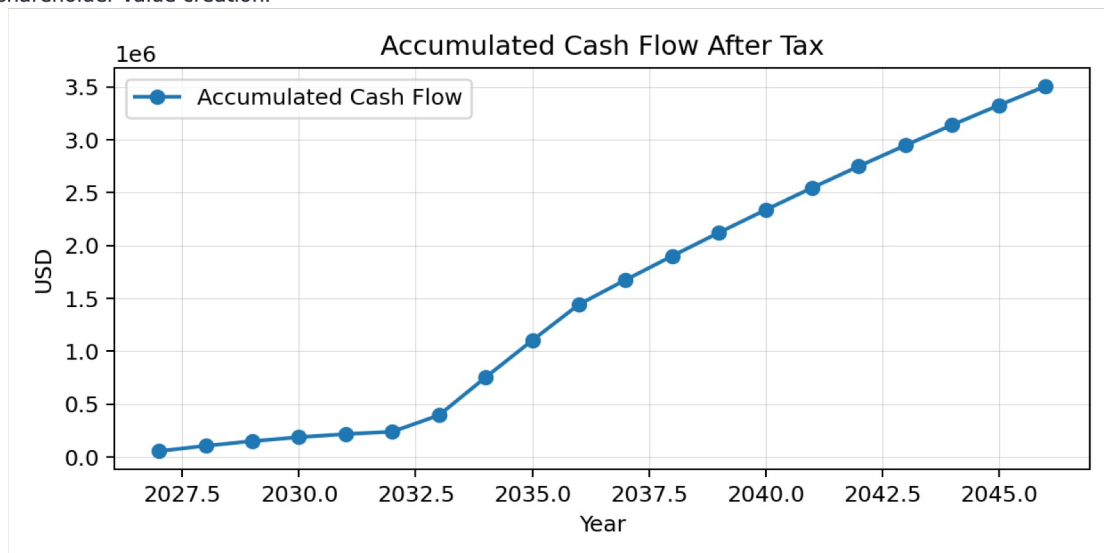


Total costs decline sharply after debt repayment, then increase moderately from Year 11 due to corporate income tax. Despite taxation, the project maintains positive operating margins.

Cost Component	20-Year Total
Operating Expenditure	USD 3,439,289
Finance Cost	USD 2,477,901
Income Tax	USD 883,991
Total Cost incl. Finance and Tax	USD 6,801,181

12. Accumulated Cash Flow

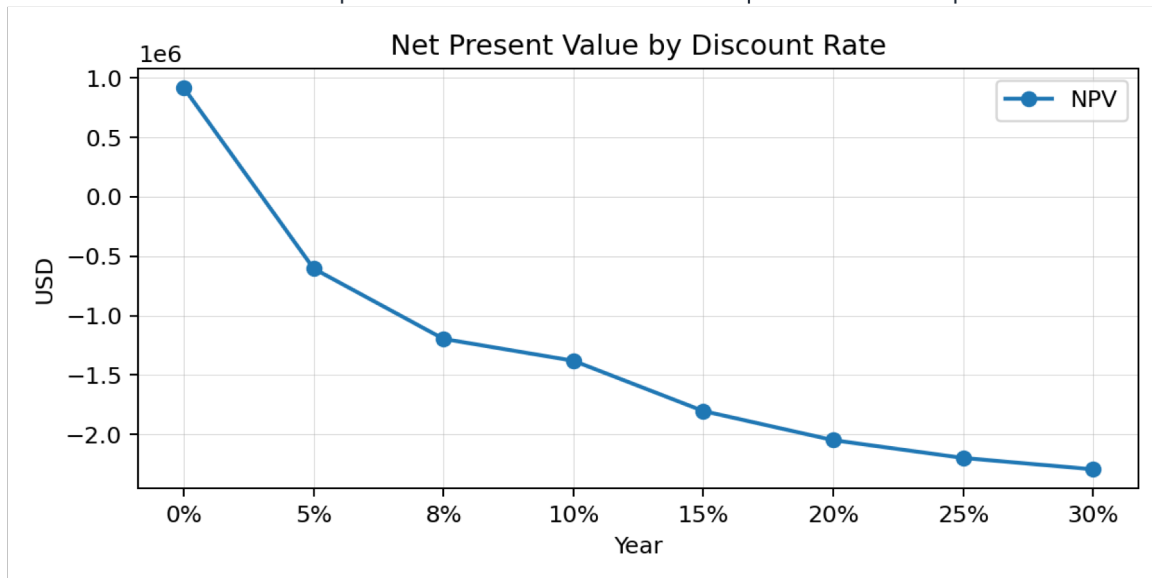
The accumulated cash flow chart demonstrates progressive recovery of invested capital and continuing shareholder value creation.



The strongest growth occurs after loan repayment. The project achieves full capital recovery after approximately 7.7 years and continues to increase accumulated cash flow after corporate income tax begins in Year 11.

13. Net Present Value Analysis

Net Present Value measures the present value of future cash flows compared with initial capital investment.

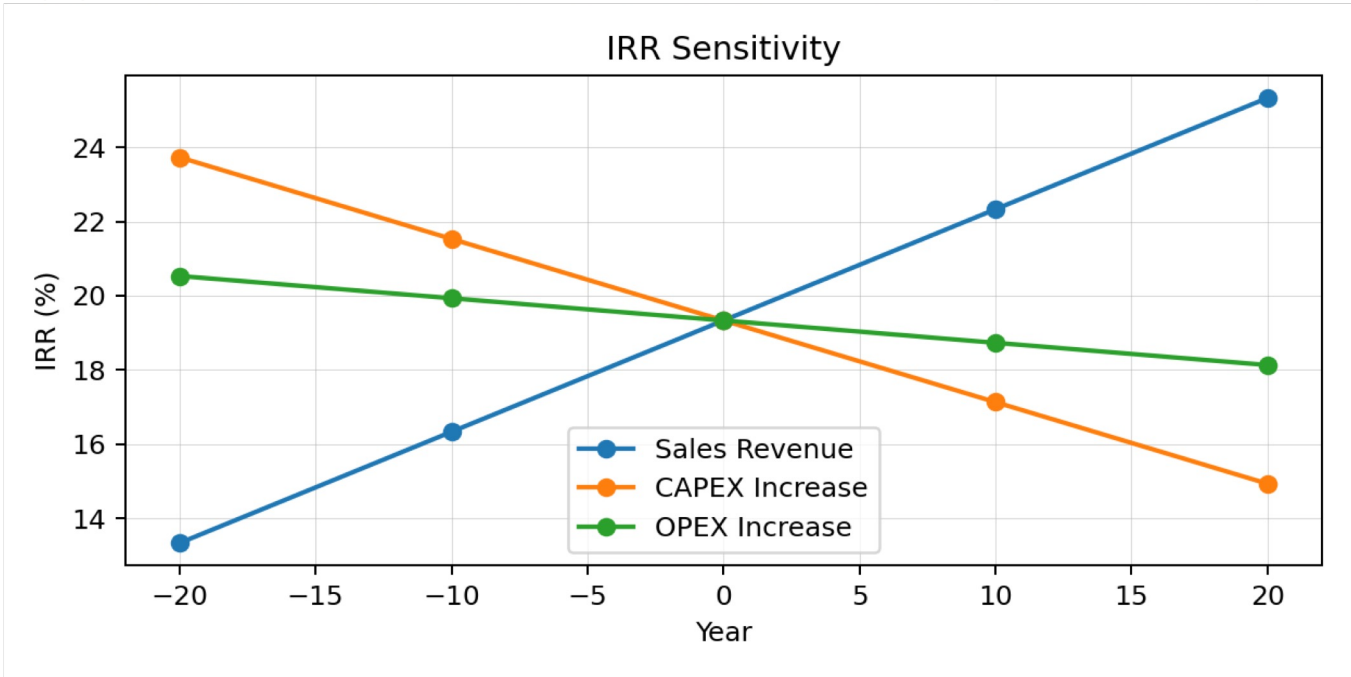


Discount Rate	NPV
0.0%	USD 917,159
5.0%	USD -604,892
8.5%	USD -1,196,876
10.0%	USD -1,380,685
15.0%	USD -1,803,929
20.0%	USD -2,049,104
25.0%	USD -2,198,795
30.0%	USD -2,294,501

A positive NPV confirms that the project creates economic value above the required return. The NPV remains resilient under the revised taxation assumptions.

14. Internal Rate of Return Analysis

The project achieves an Internal Rate of Return of 19.33% under the final financing and taxation assumptions.

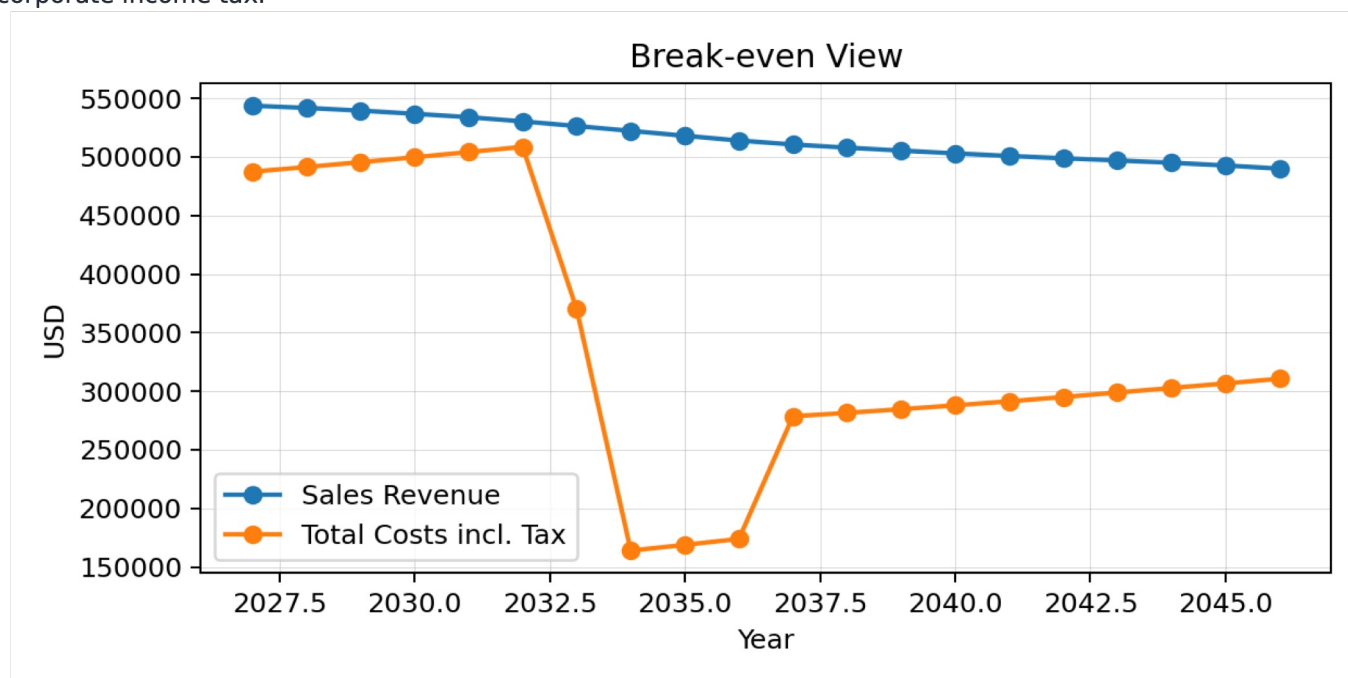


Variation	Sales Revenue	CAPEX Increase	OPEX Increase
-20%	13.33%	23.73%	20.53%
-10%	16.33%	21.53%	19.93%
0%	19.33%	19.33%	19.33%
10%	22.33%	17.13%	18.73%
20%	25.33%	14.93%	18.13%

The achieved IRR substantially exceeds the assumed financing cost and confirms long-term financial attractiveness.

15. Break-even Analysis

The break-even analysis compares annual sales revenue with total costs including OPEX, finance cost and corporate income tax.

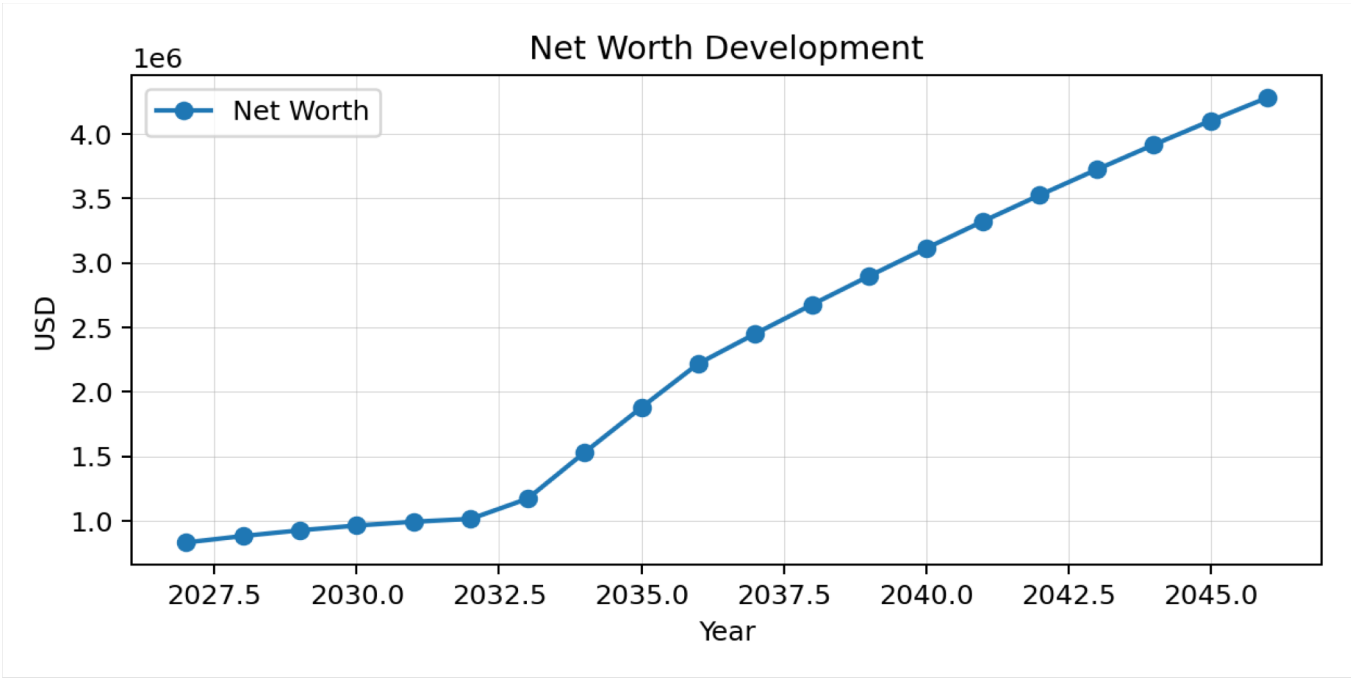


Debt service elimination after Year 7 improves the financial position. Taxation from Year 11 reduces annual net profitability but does not reverse positive operating performance.

Break-even Indicator	Assessment
Debt Service Period	Years 1-7
Highest Free Cash Flow Phase	Years 8-10
Tax Period	Years 11-20
Financial Self-Sufficiency	Maintained

16. Net Worth Analysis

Net Worth reflects cumulative growth of shareholder value over the twenty-year evaluation period.



Shareholder equity increases continuously throughout the evaluation period. Corporate income tax moderates the growth rate after Year 10 but does not interrupt the long-term upward trend.

Indicator	Result
Initial Equity	USD 776,520
Final Net Worth Indicator	USD 4,282,079
Shareholder Value Creation	Positive
Long-Term Trend	Increasing

17. Financial Performance Summary

The comprehensive evaluation confirms a robust financial profile over the twenty-year operating period.

Financial Indicator	Final Result
Total Investment	USD 2,588,400
Equity Contribution	USD 776,520
Senior Project Debt	USD 1,811,880
Debt Repayment	7 Years
Income Tax Holiday	Years 1-10
Income Tax	30% from Year 11
IRR	19.33%
ROI	159.90%
Payback	7.7 Years

The project combines strong profitability, stable cash generation and conservative financing, resulting in a financially resilient investment over the full evaluation period.

18. Executive Investment Assessment

This assessment summarizes overall investment quality based on the financial analysis presented in this report.

Assessment Area	Evaluation
Financial Feasibility	Excellent
Investment Profitability	Strong
Liquidity Position	Strong
Debt Service Capacity	Strong
Financial Stability	High
Long-Term Sustainability	Excellent
Shareholder Value Creation	Excellent
Overall Investment Quality	High

The updated financial model confirms that the project combines profitability, stability and long-term value creation, making it a strong candidate for commercial financing and private investment.

19. Investment Recommendation

The financial evaluation confirms that the Surf-n-Fun Renewable Energy Project represents a technically sound and financially attractive renewable energy investment opportunity.

Investment Highlight	Status
Strong Long-Term Financial Performance	Confirmed
Positive Operating Cash Flow	Confirmed
Conservative Capital Structure	30% Equity / 70% Debt
Complete Debt Repayment	After 7 Years
Income Tax Holiday	Years 1-10
Corporate Income Tax	30% from Year 11
IRR / ROI / Payback	19.33% / 159.90% / 7.7 Years

The project is considered suitable for financing discussions with commercial banks, development finance institutions, export credit agencies and private investors, subject to customary technical, legal and environmental due diligence.

20. Final Conclusion and Professional Statement

This Financial Feasibility Study has evaluated the technical and financial viability of the Surf-n-Fun 3.00 MWp Photovoltaic Power Plant with 1.50 MW Battery Energy Storage System located in El Salvador.

The model incorporates updated capital investment costs, final financing structure, seven-year senior debt repayment, a corporate income tax exemption during the first ten operating years and 30% corporate income tax on Profit Before Tax from Operating Year 11 onward.

Final Financial Indicator	Result
Total Investment	USD 2,588,400
Equity / Debt	30% / 70%
Debt Repayment	7 Years
Corporate Income Tax Holiday	Years 1-10
Corporate Income Tax	30% on PBT from Year 11
Internal Rate of Return	19.33%
Return on Investment	159.90%
Payback Period	7.7 Years

The financial evaluation confirms that the project represents a technically feasible and financially attractive renewable energy investment. The updated model demonstrates sustainable profitability, stable operating cash flow and long-term value creation under the adopted financing and taxation assumptions.

Project Development, Financing & EPC Implementation Schedule

Phase	Duration	Planned Window
Project Kick-Off	1 week	Month 0
PPA Negotiation & Generation License	3 months	Months 0-3
Grid Approval	3 months	Months 0-3
30% Equity Arrangement	3 months (parallel)	Months 0-3
Supplier Loan Approval (70%)	6 weeks	Months 3-4.5
Financial Close	1 week	Month 4.5
EPC Contracts & Purchase Orders	2 weeks	Month 4.5-5
Manufacturing (EU)	7-9 weeks	Months 5-7
Civil Works (parallel)	8 weeks	Months 5-7
Transport EU → El Salvador	3-5 weeks	Months 7-8
Customs Clearance	1-2 weeks	Month 8
Mechanical Installation	8 weeks	Months 8-10
Electrical Installation	8 weeks	Months 8-10
Testing & Commissioning	2 weeks	Month 10
Commercial Operation Date (COD)	Milestone	End of Month 10
Final Acceptance	2 weeks	Month 10-11

Payment Timeline

1. Project development expenditure.
2. Equity contribution (30%): USD 776,520.
3. Supplier credit approval (70%): after equity confirmation (approx. 6 weeks).
4. Manufacturing progress payments.
5. Shipment from Europe to El Salvador.
6. Delivery, installation and commissioning payments.
7. Commercial Operation Date (COD) followed by PPA revenue and loan repayment.

Critical Path: PPA → Licenses → Equity → Supplier Loan → Financial Close → Manufacturing → Shipping → Installation → Commissioning → COD.

Project Development, Financing & EPC Timeline

Master Project Timeline

Activity	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Project Kick-Off	■											
PPA Negotiation	■	■	■									
Generation License	■	■	■									
Grid Connection Approval	■	■	■									
30% Equity Arrangement	■	■	■									
Supplier Credit Approval				■	■							
Financial Close				■								
Manufacturing				■	■	■						
Civil Works				■	■	■						
Shipping EU → El Salvador						■	■					
Customs							■					
Mechanical Installation							■	■	■			
Electrical Installation							■	■	■			
Testing									■			
Commissioning									■	■		
Commercial Operation Date										●		

Payment Timeline

Milestone	Funding Source
Project Development	Developer
30% Equity Injection	Investor Equity
70% Supplier Credit Approval	Equipment Supplier / Lender
Manufacturing Progress Payments	Supplier Credit
Shipment Payment	Supplier Credit
Installation & Commissioning	Final EPC Payment
Commercial Operation Date	PPA Revenue Begins

Critical Path

PPA → Licenses → Equity → Supplier Credit → Financial Close → Manufacturing → Shipping → Installation → Commissioning → COD



Creating a Powerful Future

Mono S4 Halfcut | Trend White Project

635 W / 640 W / 645 W / 650 W

The 132 half-cell class of our power module. The transparent glass at the front and rear with a white print (white mesh) between the cells makes the module a visual highlight and maximises efficiency. Double glass module with bifacial monocrystalline N-Type/ TOPCon half cells.

Especially suitable for:



Solar Parks



Commercial



German warranty

15-year guarantee on the product and 25 years on the module performance



Multibusbar technology

Higher performance, greater reliability and higher (electrical) load capacity



Self-cleaning

Highly transparent & self-cleaning



Area utilisation factor

241 W/m² at 650 W. Better comparability through watt output per square metre



White Mesh

Transparent double glass solar module with a white print between the cells



Bifacial cell

Cell with additional rear-side energy harvesting via reflection



N-type technology

TopCon solar module with N-Type technology for even more peak performance



Half-cell module

Two-part cell for more efficiency, more safety and more reliability



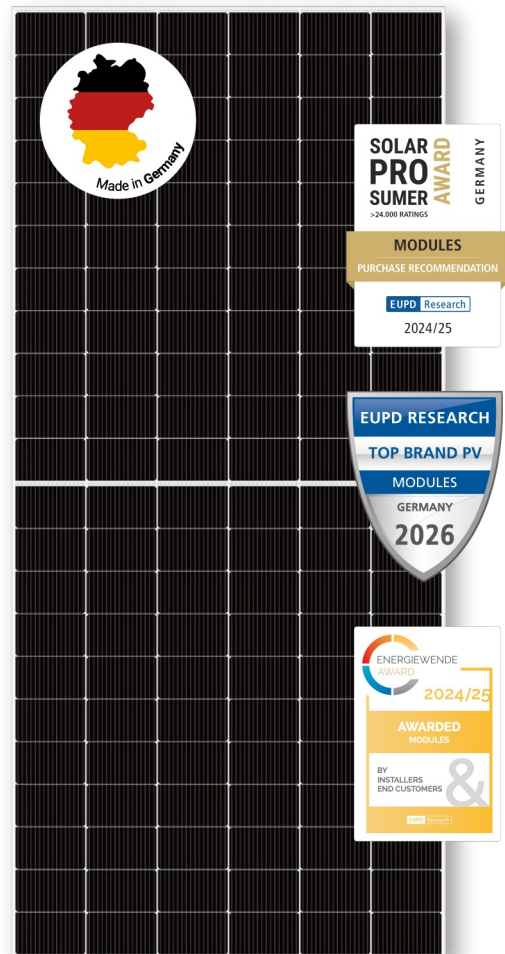
Low-light behaviour

Outstanding performance even under low light conditions



Glass cover

Resistant to ammonia & salt spray





Creating a Powerful Future

4608 x 650Wp

Mono S4 Halfcut | Trend White Project

635 W / 640 W / 645 W / 650 W

Electrical data under STC

(Standard Test Conditions: 1000 W/m², 25 °C, AM 1.5, Measuring tolerance: ± 3%)

	P _{max}	635 W	640 W	645 W	650 W
Rated power	P _{max}	635 W	640 W	645 W	650 W
Sorting limits of performance		0/+3 W	0/+3 W	0/+3 W	0/+3 W
Voltage	U _{MPP}	41.16 V	41.30 V	41.44 V	41.58 V
Open circuit voltage	U _{OC}	49.68 V	49.88 V	50.08 V	50.28 V
Current	I _{MPP}	15.43 A	15.50 A	15.57 A	15.64 A
Short-circuit current	I _{SC}	16.26 A	16.32 A	16.38 A	16.44 A
Efficiency		23.51 %	23.69 %	23.88 %	24.06 %

Temperature data

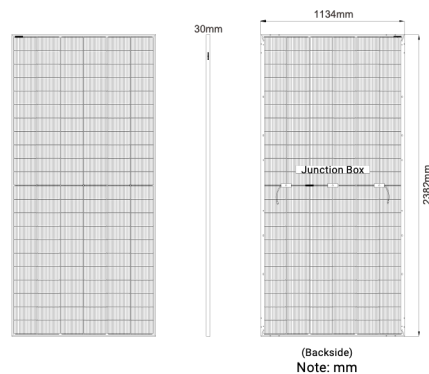
Operating temperature		- 40° C ~ + 85° C
Power temperature coefficient	T _K (P _{MPP})	- 0.290 %/°C
Voltage temperature coefficient	T _K (U _{OC})	- 0.250 %/°C
Current temperature coefficient	T _K (I _{SC})	0.045 %/°C

Further information

Number of cells	132 N-Type bifacial monocrystalline half cells (6 x 22)
Cell size	2382 x 1134 x 30 mm
Module frame	Silver anodized aluminium alloy
Max. system voltage	1500 V
Reverse current loading capability	30 A
Glass thickness	Frontside/Backside: 2.0 mm/2.0 mm
Weight	ca. 32.4 kg
Module connection	MC4 or similar, 4.0 mm ² , cable length: (+) ≥ 400 mm, (-) ≥ 200 mm
Junction box rating	IP68
Snow load	5400 Pa ± 550 kg/m ²

15-year product warranty, 25-year linear performance warranty according to our additional warranty conditions for solar power modules of the "Mono S4 Halfcut Trend White Project" product series, which we will gladly send you. Due to the tolerance of the anti-reflective coating, colour differences in the solar modules may occur.

S4-DGXXX-132TMax (half cell module)



Note:
Ensure correct polarity!
Tolerance range in accordance
with current warranty conditions.

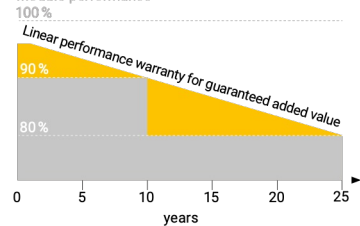
(Backside)
Note: mm

Errors and technical modifications are subject to change, with possible re-certifications. Image may differ.

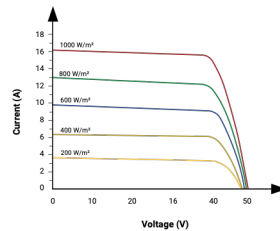
Logistics

Dimension pallet (L/W/H)	116/113/253,50 cm
Weight pallet	ca. 1196 kg
Modules per pallet	36
Modules per Container [40' HC]	720

Module performance



Linear performance warranty
Standard tiered warranty



Your specialist dealer:

Solar Fabrik GmbH
Hermann-Niggemann-Str. 7-9
63846 Laufach
Germany

+49 (0)6093 20770-0
info@solar-fabrik.de
www.solar-fabrik.de

Valid as of: 05.05.2026
MD1000260505



blueplanet 360 NX3

**MULTI-MPPT STRING INVERTER
FOR UTILITY-SCALE AND
PHOTOVOLTAIC SYSTEMS**

▶ **Power up
to 363 kW**

▶ **Top-class
cybersecurity**

▶ **Very Late
Derating**

Technical Data.

blueplanet 360 NX3



8 x Inverter

DC input data		360 NX3
Max. recommended PV generator power		544 000 W
MPP range		860 – 1300 V
Operating range		500 – 1500 V
Rated DC voltage / start voltage		1080 V / 550 V
Max. no-load voltage		1500 V
Max. input current		6 * 75 A
Max. short circuit current I _{SC MAX}		6 * 113 A
Number of MPP trackers		6
Connection per tracker		5/5/5/5/5/5
AC output data		
Rated output		363 000 VA @35 °C / 363 000 VA @40 °C > 1080 VDC / 326 700 VA @90% UNOM according to AR-N-VDE 4110
Max. power		363 000 VA
Line voltage		800 V (3P+ PE)
Voltage range (Ph-Ph)		640 – 920 V
Rated frequency (range)		50 Hz / 60 Hz
Rated current		262 A
Max. current		262 A
Reactive power / cos phi		0.80 ind. – 0.80 cap.
Max. total harmonic distortion (THD)		< 3 %
Number of grid phases		3
General data		
Max. efficiency		98.9 %
Europ. efficiency		98.6 %
Standby consumption		< 6 W (night)
Circuitry topology		transformerless
Anti-PID		✓combined with the Communication Box
Tracker interface		✓
Q at night		✓
DC surge protection Type II		✓
AC Surge protection Type II		✓
Anti-island protection		✓
AC overcurrent protection		✓
DC reverse connection protection		✓
AC short circuit protection		✓
PV string monitoring		✓
Grid monitoring		✓
Residual Current Monitoring Unit		✓
Mechanical data		
Display		LED
Interfaces		RS485, K-Bus
DC connection		plug in connector
AC connection		OT/DT connector
Ambient temperature		-30 °C – +60 °C
Humidity		100 %
Max. installation elevation (above MSL)		4 000 m
Climatic category (according to IEC 60721-3-4)		4K4H
Cooling		forced air
Protection class		IP66
Noise emission		71 db (A)
H x W x D		780 mm x 1080 mm x 385 mm
Weight		122 kg
Certifications		
Safety & Grid		CE, IEC62109-1/2, IEC61683, 50549-10 / EN 50549-2 inc. A1:2023 / AR-N-VDE 4110 / AR-N-VDE 4120 / TOR Erzeuger B - D Version 1.3:2024 / NA/EEA-NE3-5 – CH 2022 / EN 50549-2 & EN 50549-10 french deviation / more information see homepage / download area

The text and figures reflect the current technical state at the time of printing. Subject to technical changes. Errors and omissions excepted.
This current version replaces all older versions. Download the most current version at: www.kaco-newenergy.com

360 NX Communication-Box ///

The 360 NX Communication-Box is your convenient way to manage large areas of PV systems including multiple inverters and external components. It offers various services such as communication options, Anti-PID control, connection of weather sensors and more.



Safe monitoring for your PV park

- ▶ High cyber security standards for maximum safety
- ▶ Optical fiber, LAN, Anti-PID, K-Bus, RS485 connection, and more
- ▶ Optical fiber connection of up to 15 x 360 NX Communication-Boxes
- ▶ Connect weather stations and 3rd party devices via RS485

360 NX Communication-Box /// Technical Data.

2 x communication Box

General data

Datalogger	NX Utility AI Manager
Standby consumption	max. 250 W
AC input voltage range	100 V – 240 V
K-Bus input voltage range	380 V – 800 V
Anti-PID input voltage range	380 V – 800 V
Anti-PID output voltage range	0 / +- 750 V
Rated frequency	50 Hz / 60 Hz

Mechanical data

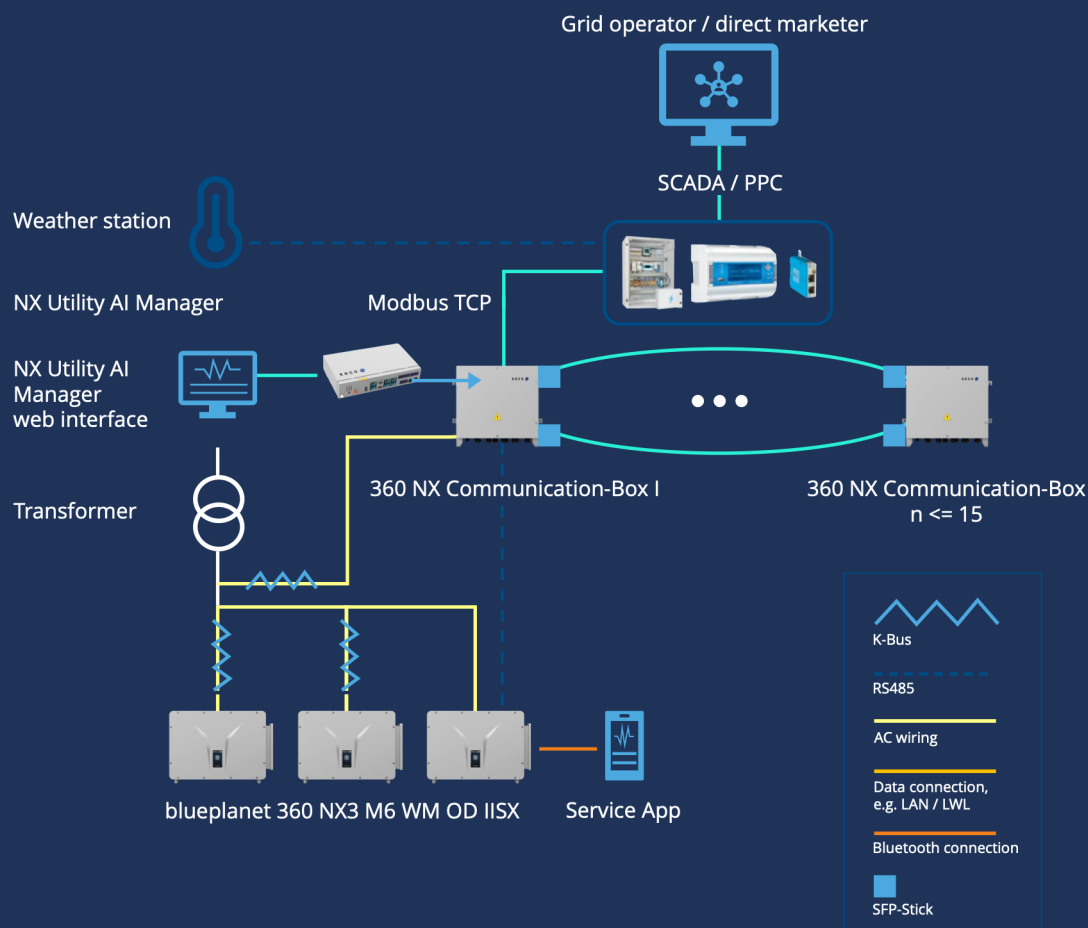
Control units	local web interface
Interfaces	2 x WAN
	4 x LAN
	6 x RS485
	4 x digital input
	4 x digital output
	4 x analog input
	2 x optical fiber port
	2 x K-Bus
	1 x USB
	2 x Anti-PID
	PT 100 / PT 1000
Ambient temperature	-30 °C – +60 °C
Humidity	0 – 100%
Max. installation elevation (above MSL)	3 000 m
Protection class	IP66
H x W x D	760 mm x 670 mm x 200 mm
Weight	30 kg

Certifications

Safety IEC 62368 / overview see homepage / download area



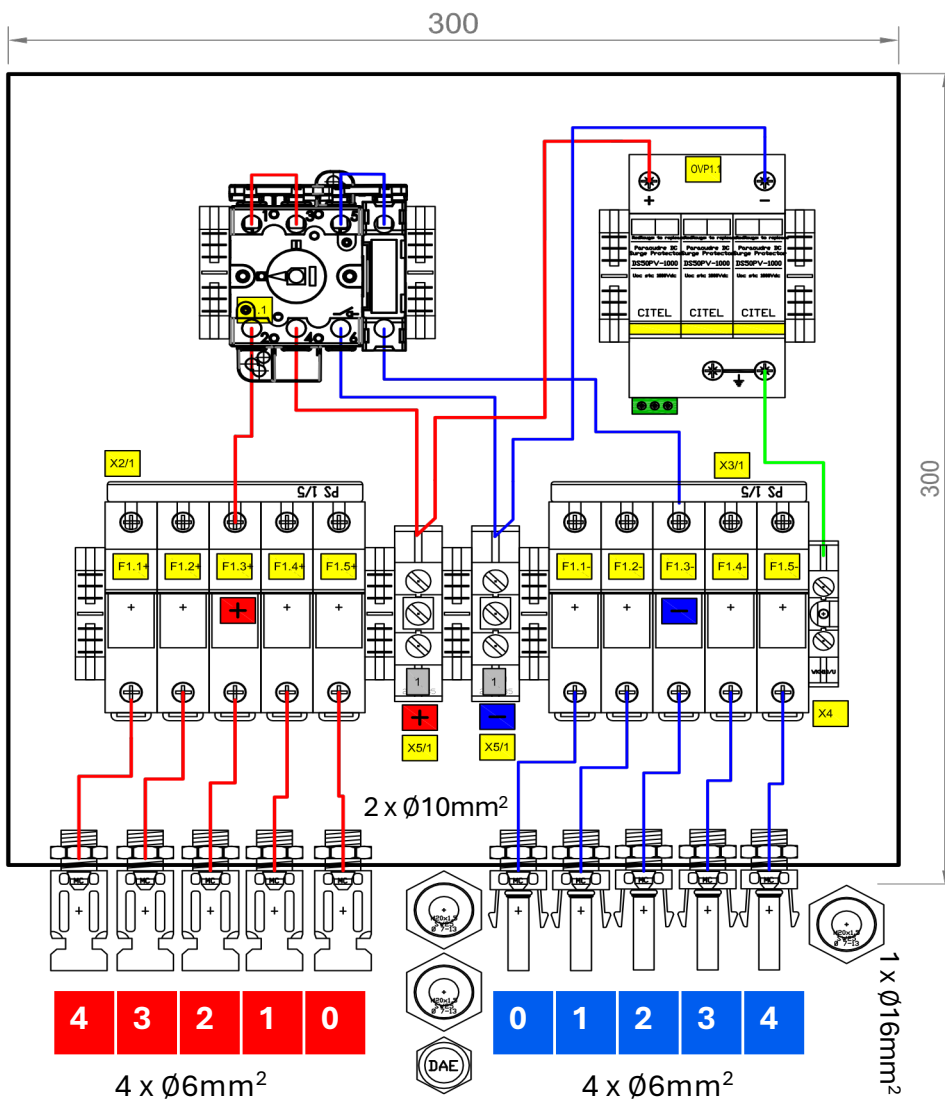
360 NX Communication-Box /// Communication.



Device	Further information
bluelog XC accessories	• Measurement technology, e.g. PQ plus UMD 96EL 24 V DC energy analyzer • Industrial router, e.g. insys MIRO • VPN license • Switch • Optional: VCOM license, direct marketing license
360 NX Communication-Box	• Includes the NX Utility AI Manager, 2 x Anti-PID-modules, and more • Including K-Bus, 6 x RS485, 4 x LAN, 2 x SFP, and more • Up to 15 x 360 NX Communication-Box via SFP and master-slave method • SFP adapter between different 360 NX Communication-Boxes and to VPN routers • Via RS485 up to 180 devices per box • Via K-Bus up to 80 inverters per box • Connection of weather stations • Local web interface

kaco-newenergy.com

48 x Combiner with 4 string



PV-male and female cable coupler MC4



PV- male and female cable coupler MC4

With Snap-in lock

Material

Polyamide
Contact: Cu, tinned, rotated

Technical data

Protection classification: IP 67
Safety class: II
Temperature range: -40°C up to +90°C
Rated voltage: 1000 V (IEC)
Rated current: 22A (2,5 mm²), 30A (4mm², 6mm²)
Contact resistance of plug connectors: 0.35 mOhm

MC4 male cable coupler

Part no.	Designation	Cross section mm ²	Cable Ø mm	Unit
905206	PV-male cable coupler MC4	2,5	3 - 6	50
905208	PV-male cable coupler MC4	2,5	5,5 - 9	50
905210	PV-male cable coupler MC4	4 - 6	3 - 6	50
904963	PV-male cable coupler MC4	4 - 6	5,5 - 9	50
905863	PV-male cable coupler MC4	10	5,5 - 9	50

MC4 female cable coupler

Part no.	Designation	Cross section mm ²	Cable Ø mm	Unit
905207	PV-female cable coupler MC4	2,5	3 - 6	50
905209	PV-female cable coupler MC4	2,5	5,5 - 9	50
905211	PV-female cable coupler MC4	4 - 6	3 - 6	50
904964	PV-female cable coupler MC4	4 - 6	5,5 - 9	50
905864	PV-female cable coupler MC4	10	5,5 - 9	50

Dimensions and specifications may be changed without prior notice.

Nominal voltage
AC 1 kV / DC 1.5 kV



SOLARFLEX®-X H1Z2Z2-K

1500 V DC, EN 50618



Technical data

- **Temperature range**
-40°C to +90°C
max. temperature at conductor +120°C
- **Nominal voltage**
AC 1.0/1.0 kV / DC 1.5/1.5 kV
- **Test voltage**
AC 6.5 kV
- **Minimum bending radius**
fixed installation 5x cable Ø

Cable structure

- Tinned copper conductor, fine wired acc. to DIN VDE 0295 cl.5, IEC 60228 cl.5
- 1st core insulation: special cross-linked compound
- 2nd core insulation: special cross-linked compound
- Sheath colour: see table

Properties

- Double-insulated
- Complies with protection class II
- UV-resistant
- Ozone-resistant

Application

The SOLARFLEX®-X is used for cabling solar panels. **CE** = Product conforms with Low-Voltage Directive 2014/35/EU.

Part no.	No. cores x cross-sec. mm²	Sheath colour	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG no.
713529	1 x 2.5	black	5.0	24.0	41.0	14
713544	1 x 2.5	blue	5.0	24.0	41.0	14
713543	1 x 2.5	red	5.0	24.0	41.0	14
713530	1 x 4	black	5.4	38.4	55.0	12
713546	1 x 4	blue	5.4	38.4	55.0	12
713545	1 x 4	red	5.4	38.4	55.0	12
713531	1 x 6	black	6.2	57.6	82.0	10
713570	1 x 6	blue	6.2	57.6	82.0	10
713569	1 x 6	red	6.2	57.6	82.0	10
713532	1 x 10	black	7.4	96.0	123.0	8
713572	1 x 10	blue	7.4	96.0	123.0	8
713571	1 x 10	red	7.4	96.0	123.0	8

Dimensions and specifications may be changed without prior notice

Tests

- Halogen-free acc. to EN 50267, IEC 60754
- Flame retardant acc. to IEC 60332-1-2
- Smoke density acc. to IEC 61034
- Weathering/UV-resistant acc. to EN 50618 Annexe E
- EN 50289-4-17 Method A

- Ozone-resistant acc. to EN 50396 Clause 8.1.3 Method B

Approvals

- EN 50618
TÜV Rheinland 2 PfG 1990/05.12
TÜV R60115689

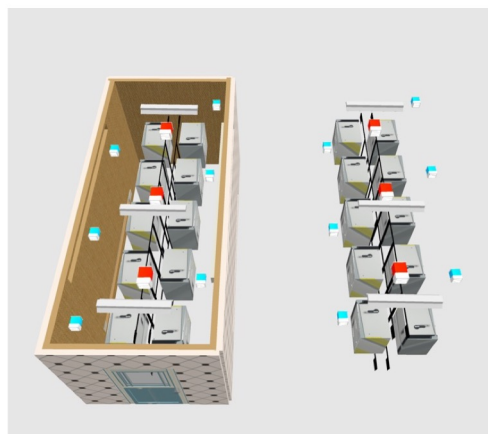
Inverter Safety Container [ISC]

2 x 1,5 MW. 20" Container (Inverter))
2 x 1,5. MW. 20" Container (BESS)

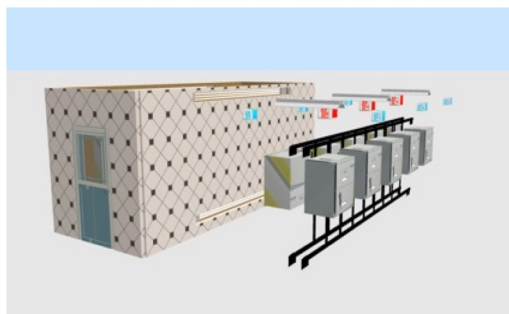
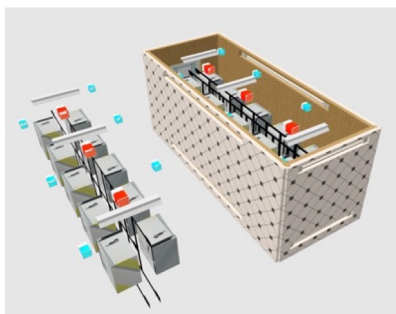
www.rs-nkp.com

ISC 1MW-2MW-4MW

- The ISC system exists in three different capacities. This is based on the existing container mass, which brings its advantages as central inverter systems.
- The prefabrication of the system components simplifies assembly, saves time and avoids errors on the part of the installer.
- Protects against external weather conditions such as temperature fluctuations and dirt.
- Extends the lifespan of components.
- Constant maximum output power through optimized air-conditioned room temperature and air filtering with 100% automatic operation.
- Simple servicing for repairs and replacements without taking entire capacity out of the production line, as each small individual unit is treated separately.



www.rs-nkp.com



1MW
2MW
4MW

- We create containers available in three different dimensions: 10 feet, 20 feet and 40 feet.
- Depending on customer needs, this can be done with different Kaco inverters from the Blueplanet 50 to 165 series.
- Specific individual insulation options depending on the location and needs optimally protect the inside from the outside.
- By using the SWC (Solar Watter Cooler), the air-conditioned ventilation system ensures maximum efficiency and a constant temperature with minimal energy consumption.



**2 x 1,5 MW. 20“ Container
(Inverter)**
**2 x 1,5 MW. 20“ Container
(BESS)**

Characteristics of SWC System

- The basic principle of this construction is the use of the storage capacity of the rooms and to reach an additional cooling effect through the reclamation of the stored energy.

With electronic supervision through humidity and temperature sensors, the efficiency is once more optimised.

Toward the airflow, water is sprayed under height pressure in order to produce fumigation to raise the economical energy release.
- After that the current is directed into the heat exchanger, in which by the bigger surface other droplets turn into gas. The energy is led to the opposite side by the heat exchanger. The not evaporated droplets are collected in the absorption tank and are led back into the system.

With this uncontrolled evaporation is prevented.

Individuelle filters possibilities

The application of blue light in the CHE acts antibacterial.

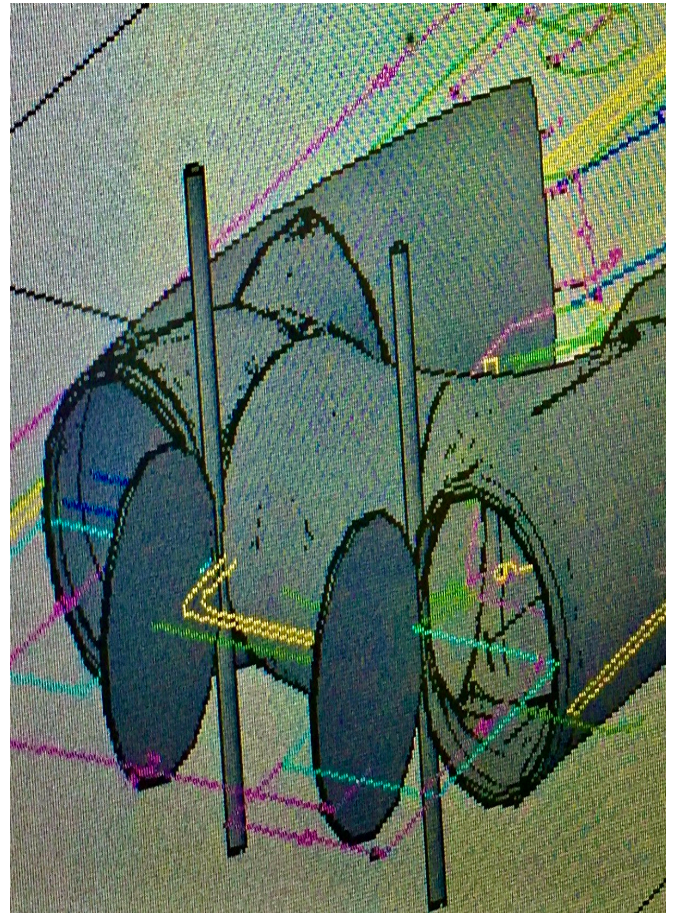
Costs are reduced by using less raw materials on inlet air canals and outgoing air canals which are substituted by tubes. Space saving by lower volume.

Lower noise level in the overall system.

Lower acquisition and installation costs compared to conventional appliances.

Lower maintenance costs due to high system quality.

With this apparatus the user can optionally include the whole house control (BMS). Additional feed of solar surplus. Reduction of the CO₂ emission.



4 Sets

Multi X-Connect systems

It is possible to combine up to 9 Xtender inverter/chargers (3 X-Connect systems) allowing to reach a total power of 72kW.



4 Sets

(9x XTH 8000-48V
84 x A602/3920)

36 x XTH 8000-48V

336 x A602/3920

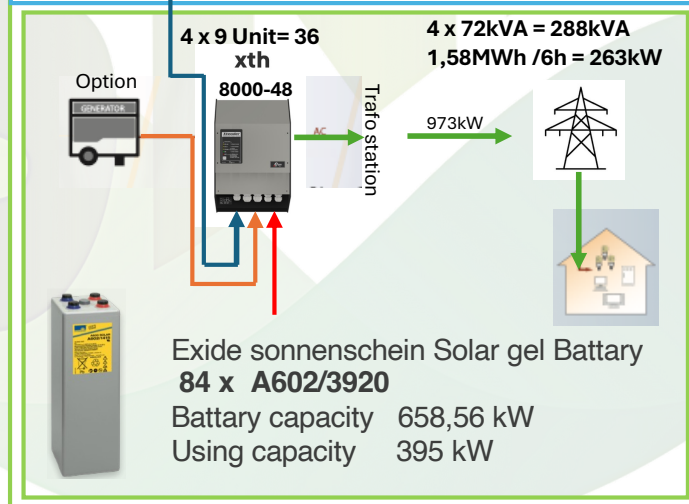
Battery capacity

2,63 MWh

Using capacity

1,58 MWh

Tabuka 2,995MWp PV Solar Power Plant
4608 x 650Wp Solarfabrik
8 x 360 NX Kaco Inverter
2 x 1,5 MW ISC. (0,8kVA/20-33kVA)
1 x 1,5MW Trafo station. (0,8kVA/20-33kVA)



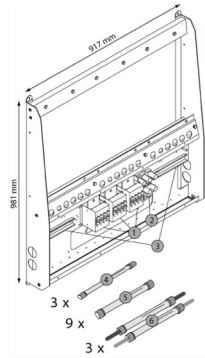
NATURAL BORN ENERGY

INTRODUCTION

Congratulations! You just purchased the **X-Connect**, a mounting frame to assemble a multi-Xtender system.

The X-Connect will offer you a flexible and economical solution for high power systems based on inverters from the XTH product range. Indeed, it will make the cabling of centralized, parallel, 3-phase or even parallel + 3-phase systems much easier.

Supply list



In order to simplify the installation of an X-Connect system as much as possible, the mounting frame is supplied with the following items :

1. Pre-installed DC circuit breakers 3 x 400A
2. Pre-installed DC fuses 3 x 400A
3. Pre-installed DIN rails
4. Interconnection pipes and glands for auxiliary contacts wiring
5. Interconnection pipe and gland for AC wiring
6. Interconnection pipes and glands + 90mm² wire terminated with appropriate ring tongues for DC wiring from Xtender to breakers and fuses

36 x XTH 8000-48

Xtender
XTH



Model	XTH 3000-12		XTH 5000-24		XTH 6000-48		XTH 8000-48	
Inverter								
Nominal battery voltage	12 Vdc		24 Vdc		48 Vdc			
Input voltage range	9.5 - 17 Vdc		19 - 34 Vdc		38 - 68 Vdc			
Continuous power @ 25°C	2500 VA		4500 VA		5000 VA		7000 VA	
Power 30 min. @ 25°C	3000 VA		5000 VA		6000 VA		8000 VA	
Power 5 sec. @ 25°C	7.5 kVA		12 kVA		15 kVA		21 kVA	
Maximum load	Up to short-circuit							
Asymmetric load	Up to Pcont.							
* Load detection (stand-by)	2 to 25 W							
Cos φ	0.1-1							
Maximum efficiency	93 %		94 %		96 %			
Consumption OFF/Stand-by/ON	1.2 W / 1.4 W / 14 W		1.4 W / 1.8 W / 18 W		1.8 W / 2.2 W / 22 W		1.8 W / 2.4 W / 30 W	
* Output voltage	Pure sine wave 230 Vac (± 2 %) / 120 Vac ⁽¹⁾							
* Output frequency	Adjustable 45 - 60 Hz ⁽¹⁾ ± 0.05 % (crystal controlled)							
Harmonic distortion	< 2 %							
Overload and short-circuit protection	Automatic disconnection with 3 time restart attempt							
Overheat protection	Warning before shut-off - with automatic restart							
Battery charger								
* Charge Characteristic	6 steps: Bulk, Absorption, Floating, Equalization, reduced floating, periodic absorption Number of steps, thresholds, end current and times completely adjustable with the RCC-02/-03							
* Maximum charging current	160 A		140 A		100 A		120 A	
* Temperature compensation	With BTS-01 or BSP 500/1200							
Power Factor Correction (PFC)	EN 61000-3-2							
General data	XTH 3000-12	XTH 5000-24		XTH 6000-48		XTH 8000-48		
* Input voltage range	150 to 265 Vac / 50 to 140 Vac ⁽¹⁾							
Input frequency	45 to 65 Hz							
Input current max. (transfer relay) / Output current max.	50 Aac / 56 Aac						50 Aac / 80 Aac	
Transfer time	< 15 ms							
Multifunction contacts	2 independent contacts (potential free 3 points, 16 Aac / 5 Adc)							
Weight	34 kg		40 kg		42 kg		46 kg	
Dimensions h/w/l [mm]	230 / 300 / 500		230 / 300 / 500		230 / 300 / 500			
Protection index	IP20							
EU declaration of conformity	Low Voltage Directive (LVD) 2014/35/EU: - EN 50178:1997 Electromagnetic Compliance (EMC) Directive 2014/30/EU: - EN 62040-2:2006, EN 61000-3-2:2014, EN 61000-3-12:2011							
Operating temperature range	-20 to 55°C							
Relative humidity in operation	95 % without condensation							
Ventilation	Forced from 55°C							
Acoustic level	<40 dB / <45 dB (without/with ventilation)							
Warranty	5 years							
ISO Certification	9001:2008 / 14001:2004							

Sonnenschein A600 SOLAR is a premium range, developed specifically for applications where cycling is required. It has extraordinary energy-saving features in addition to robust reliability, proven for decades in many installations worldwide.

336 x A602 / 3920

Your benefits:

- > **Exceptional cycling performance** – 3000+ cycles* at 60 % Depth of Discharge C_{10}
- > **dryfit Gel** – VRLA technology
- > **Lowest energy consumption** – saving costs
- > **Strong tubular plate technology** – for longer life in the toughest conditions
- > **Proof against deep discharge** – greater long-term energy delivery
- > **Horizontal mounting possible** – easy installation and maintenance
- > **Completely recyclable** – low CO₂ footprint



Specifications:

- > Nominal capacity 294 – 3919 Ah C_{100} (20 °C)
- > Cycling performance at 20 °C (with IU charging): 2400 cycles at 60 % Depth of Discharge (C_{10}) at 20 °C
For enhanced performance and for systems ≥ 48 V we recommend IU charging, to reach 3000+ cycles at 20 °C
- > Designed in accordance with IEC 61427 and IEC 60896-21/22
- > Long shelf life up to 2 years at 20 °C without recharge due to the very low self discharge rate
- > Also available as flame-retardant version on request (V0)
- > Manufactured in Europe in our ISO 9001 certified production plants
- > Trouble-free transport of operational cells, no restrictions for rail, road, sea and air transportation (IATA, DGR, clause A67)
- > Approval: UL (Underwriter Laboratories)



Technical characteristics and data

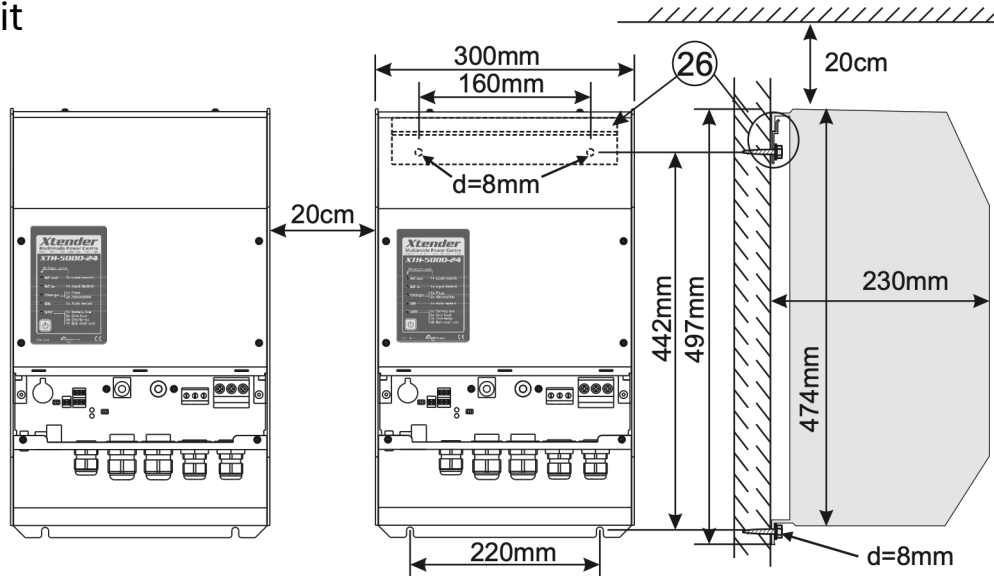
Type	Part number	Nom. voltage V	Nominal capacity C_{100} 1.85 Vpc 20 °C Ah	Discharge current I_{100} A	Length (l)		Width (b/w)		Height up to top of cover (h1) max. mm	Height incl. connectors (h2) max. mm	Weight approx. kg	Terminal	Pole pairs
					max. mm	max. mm	max. mm	max. mm					
A602/295 SOLAR	NGS6020295HSOFA	2	294	2.45	105	208	357	399	19.0	F-M8	1		
A602/370 SOLAR	NGS6020370HSOFA	2	367	3.05	126	208	357	399	23.0	F-M8	1		
A602/440 SOLAR	NGS6020440HSOFA	2	440	3.66	147	208	357	399	27.0	F-M8	1		
A602/520 SOLAR	NGS6020520HSOFA	2	519	4.32	126	208	473	515	30.0	F-M8	1		
A602/625 SOLAR	NGS6020625HSOFA	2	623	5.19	147	208	473	515	35.0	F-M8	1		
A602/750 SOLAR	NGS6020750HSOFA	2	727	6.05	168	208	473	515	39.0	F-M8	1		
A602/850 SOLAR	NGS6020850HSOFA	2	848	7.06	147	208	648	690	49.0	F-M8	1		
A602/1130 SOLAR	NGS6021130HSOFA	2	1131	9.42	212	193	648	690	66.0	F-M8	2		
A602/1415 SOLAR	NGS6021415HSOFA	2	1413	11.7	212	235	648	690	80.0	F-M8	2		
A602/1695 SOLAR	NGS6021695HSOFA	2	1695	14.1	212	277	648	690	95.0	F-M8	2		
A602/1960C SOLAR	NGS6021960HSOFB	2	1959	16.3	212	277	717	759	115	F-M8	2		
A602/2600 SOLAR	NGS6022600HSOFA	2	2613	21.7	216	400	775	816	160	F-M8	3		
A602/3270 SOLAR	NGS6023270HSOFA	2	3266	27.2	214	489	774	816	198	F-M8	4		
A602/3920 SOLAR	NGS6023920HSOFA	2	3919	32.6	214	578	774	816	238	F-M8	4		

Capacities C_1 - C_{120} (20 °C) in Ah

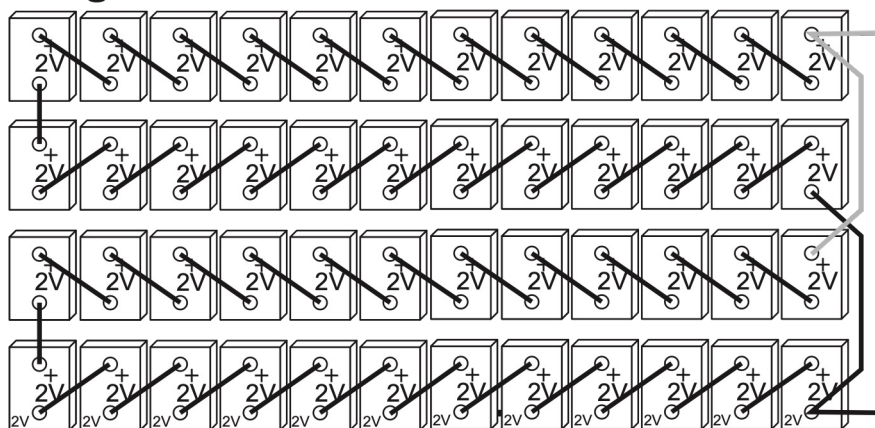
Type	C_1 1.67 Vpc	C_2 1.75 Vpc	C_5 1.77 Vpc	C_{10} 1.80 Vpc	C_{20} 1.85 Vpc	C_{120} 1.85 Vpc
A602/295 SOLAR	123	167	193	218	286	294
A602/370 SOLAR	154	209	241	272	357	367
A602/440 SOLAR	185	251	290	326	429	440
A602/520 SOLAR	229	307	342	380	505	519
A602/625 SOLAR	275	369	410	456	606	623
A602/750 SOLAR	321	431	479	532	707	727
A602/850 SOLAR	367	513	626	681	829	848
A602/1130 SOLAR	489	684	834	908	1105	1131
A602/1415 SOLAR	612	855	1043	1135	1382	1413
A602/1695 SOLAR	734	1026	1252	1363	1658	1695
A602/1960C SOLAR	824	1209	1359	1573	1937	1959
A602/2600 SOLAR	1047	1548	1782	2025	2547	2613
A602/3270 SOLAR	1309	1935	2228	2532	3184	3266
A602/3920 SOLAR	1571	2322	2673	3038	3821	3919

Fig. 2a

Dimension, clearance and affixing
9 unit
XTH



4 unit = 84 A602/3920

Fig. 6d

+

48V battery bank
wiring with 2
parallel strings
of 24 x 2V cells

A602/3920

-



4 unit 72kVA = 1008kVA

Fig. 16

Wiring example of 3 units paralleled and in three-phase

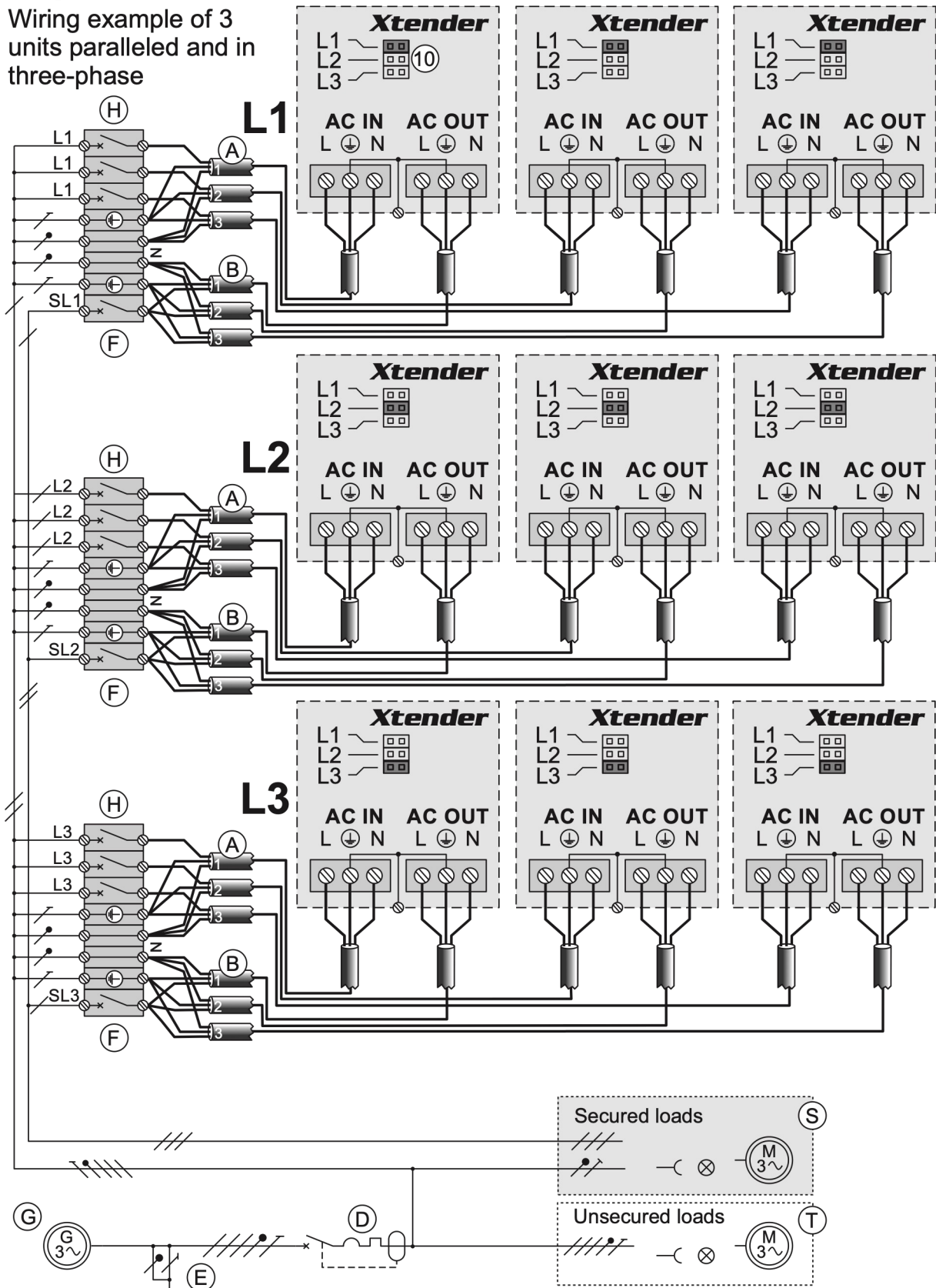
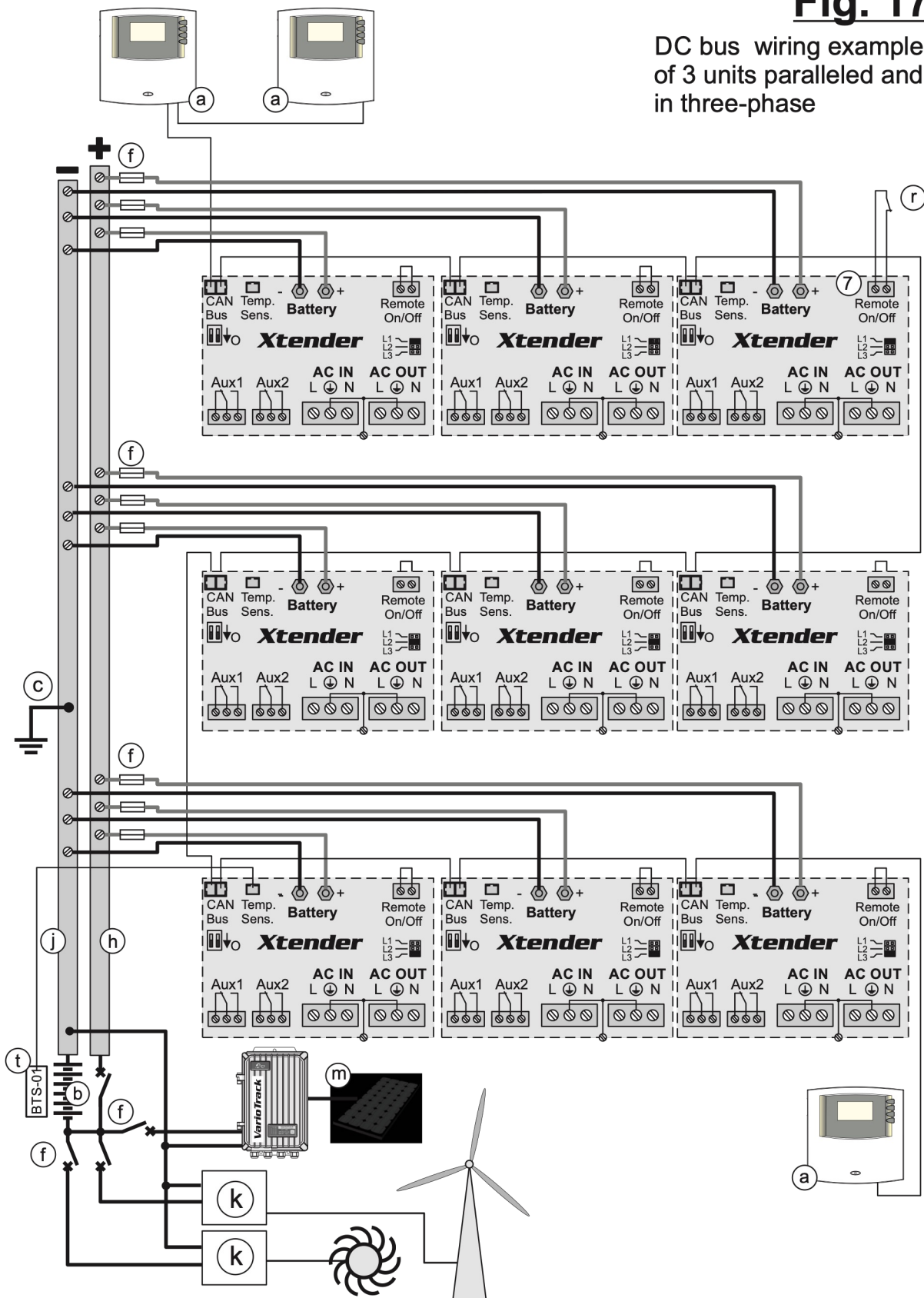


Fig. 17

DC bus wiring example
of 3 units paralleled and
in three-phase



BESS – BATTERY ENERGY STORAGE SYSTEM

GESAMTANLAGE: 3 x 2MW – 40" CONTAINER



GESAMTLEISTUNG 6MW
GESAMTKAPAZITÄT ~12MWh
CONTAINER 3 x 40" HQ
SCHUTZART IP54
KÜHLUNG HVAC

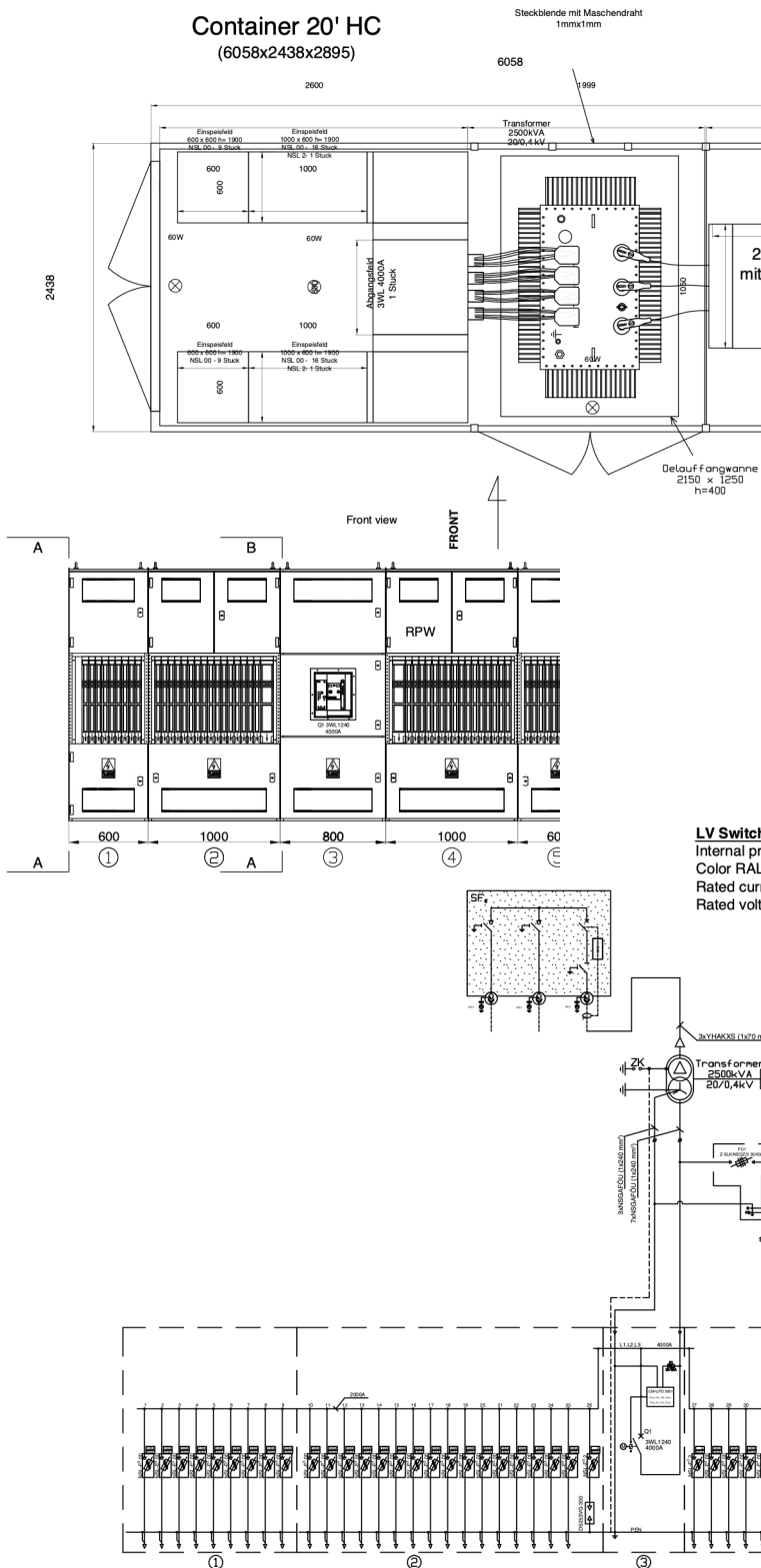


Medium voltage Siemens (FEAG) 20/33kVa Trafo station

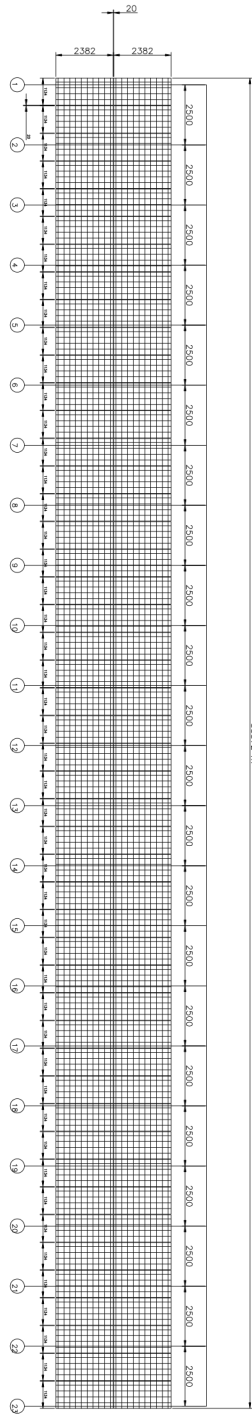


2 x 1,5MW 20/33kV|kV Trafo station (PV)
1 x 1,5MW 20/33kV|kV Trafo station (BESS)

Container 20' HC
 (6058x2438x2895)



LV Switchgear type ZR-V
 Internal protection degree -
 Color RAL - 7035
 Rated current of main bus -
 Rated voltage - 400V



General Notes

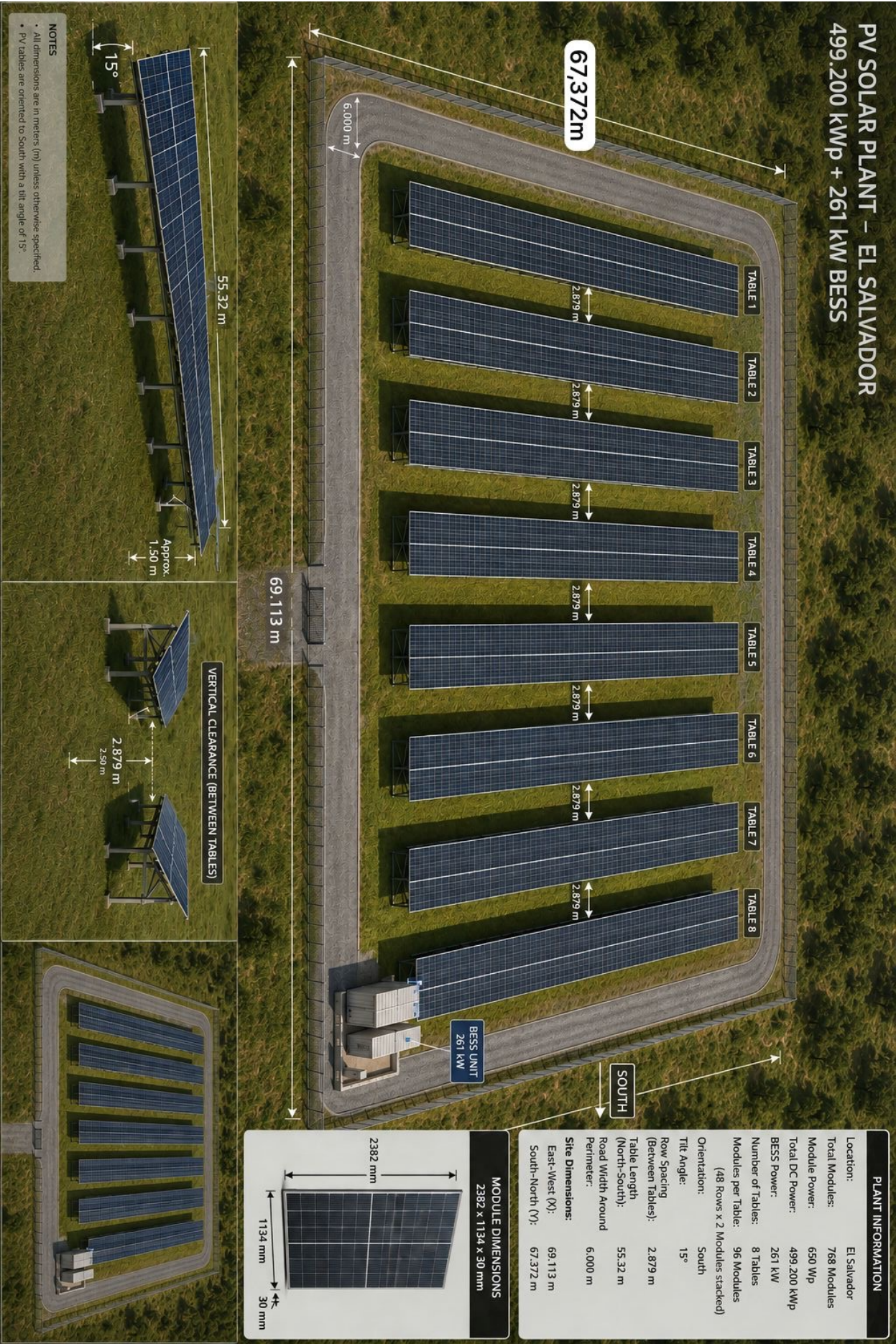
No.	
Revision/Issue	
Date	

RSNKP GmbH
 Wannenstrasse 29
 8703 Erlenbach
 Switzerland
 Eng Mashihood Mashhoodi

Project Name and Address
Surf-n-Sun
 El Tizate 601 KWP
 El Tizate - El Salvador

Project
 E 12000 001 RWP
 Date
 20.06.2026
 Scale
 0.005

optionally 6 times this unit



optionally 1 times this unit



Project involved

Project owner and Investor



Manufacturer and supplier

<https://solar-fabrik.de/>
<https://kaco-newenergy.com/home/>
<https://studer-innotec.com/>
<https://www.exidegroup.com/de/de>
<https://www.helu.com/de-en/home/>

Project planner construction supervisor and mangmant

Contact Person:
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CH-8703 Erlenbach

