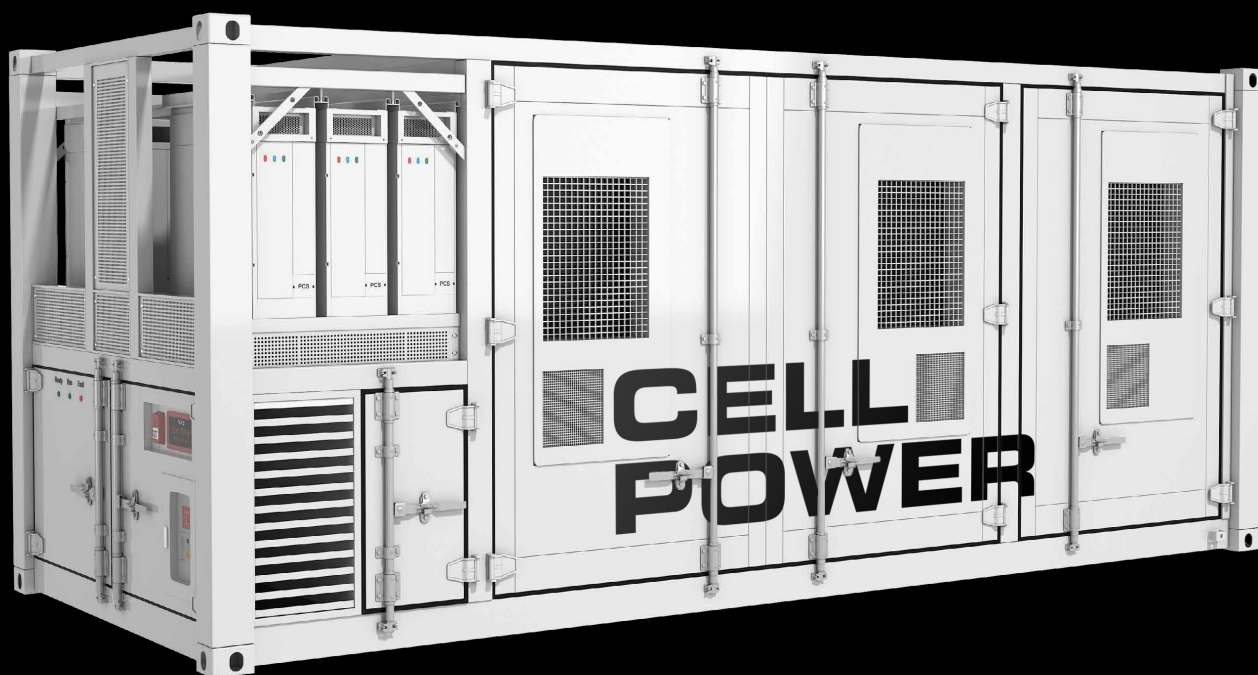


CELL POWER

Cellpower Energy Storage Systems



Quality system

LFP: Safe, Long-life: 5000+ cycles,
high energy density and
PGS 37-1 compatible



Experience

35+ years of battery knowledge
and 10 years of lithium knowledge
within Intercel



Turn-key systems

Pre-assembled, pre-tested and
plug-and-play systems. Batteries,
thermal management, inverters and
fire suppression systems are fully
integrated



Easy expandability

Systems are many times
expandable when grid connected.
It is easy to connect additional
systems.

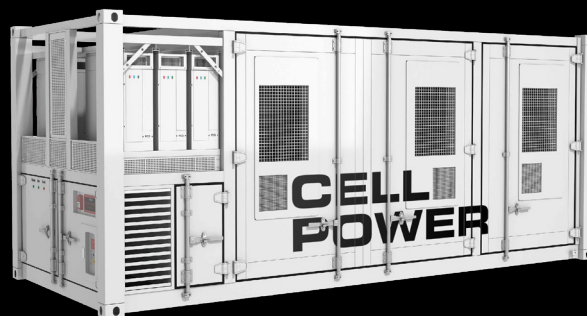
CELL POWER

Cellpower Energy Storage Systems

The Energy Storage Systems (ESS's) are a cutting-edge solution, designed to revolutionize the way energy is stored and utilized.

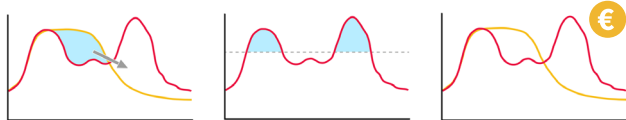
They vary from 100 to 3440 kWh in a relatively small cabinet or container. With a compact and space-efficient design, the footprint is optimised while the maximum storage capacity is ensured. This results in high energy density ESS's

The ESS's are built with Lithium Iron Phosphate (LFP) batteries, renowned for their exceptional safety and longevity. With an impressive lifespan of more than 5.000 cycles, the batteries offer sustained reliability. This makes them the ideal choice for long-term energy storage needs. Additional modules can be integrated seamlessly. By scaling the system this way, the ESS's can easily meet growing energy storage requirements. Which makes them the ideal choice for current and future needs.



Safety is a paramount topic. The energy storage systems are addressing this with fire suppression systems, extensive certifications and the use of the safest lithium battery technologie: LFP. The ESS's significantly reduce the risk of fire by actively monitoring and suppressing any potential hazards, providing added peace of mind and safeguarding the integrity of the stored energy. Maintenance of the ESS's is made easy with its accessible design, allowing for convenient and safe inspection, servicing, and troubleshooting.

Possible applications



SELF-CONSUMPTION
OPTIMISATION

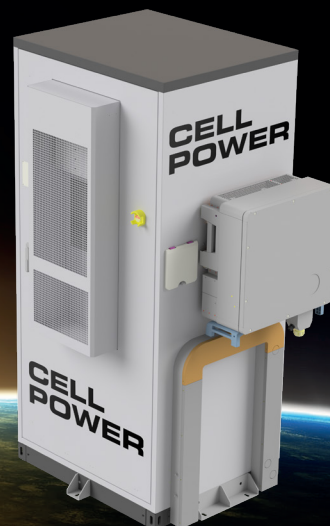
PEAK-SHAVING

TRADING

- Renewable energy integration
 - Peak-shaving
 - Self-consumption optimisation
 - Solving grid congestion
 - Option to control via external EMS
- (for example energy trading focussed on the Dutch market)

CELL POWER

CESS 100 – 50



GENERAL INFORMATION

Dimensions (LxWxH)	1100 x 1460 x 2380 mm
Weight	1500 kg
Housing	Outdoor cabinet (Anti-Corrosion C4)
Protection rating	IP54
Operating temperature	-30°C~ 50°C
Relative humidity	5%~95% (No condensing)
Maximum operating altitude	4000m (>3000m derating)
Thermal management system	Air conditioner
EMS-functionality	Peak-shaving, optimised self consumption, energy trading (optional, controlled externally)
Communication interface	TCP IEC 104
Off-grid capability	Yes, ATS required

INVERTER

Rated / nominal AC power	50 kW
Maximum AC power	55kVA
Grid voltage	400V
Grid voltage range	340V ~ 440V
AC current	80A
THDv	<3% (100% load)
AC power factor	-1 (Lagging) ~ 1 (Leading)
AC frequency	50/60Hz ± 5HZ

BATTERY

Battery technology	LFP (LiFePO4 / Lithium Iron Phosphate)
Nominal Energy	102,4 kWh
Nominal Capacity	200 Ah
Nominal Voltage	512V
Voltage range (min. - Max.)	448V ~565V
Cycle life @ 0,5°C / 25°C	5000 cycles

SAFETY

Fire suppression system	Double fire suppression system
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WARRENTY

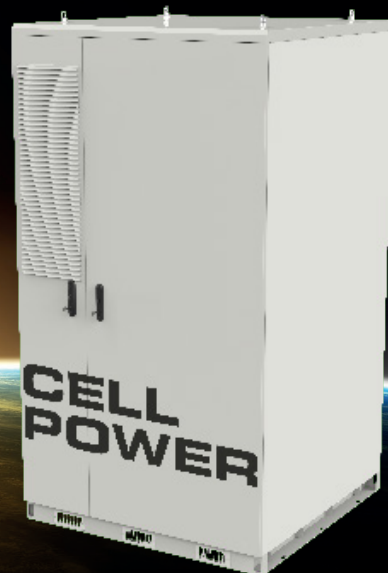
Warrenty	5 years
Certificates inverter	IEC62477;IEC61000;CE;GB/T;IEC62109; IEC61683;IEC60068;IEC61727IEC62116; EN50549;VDE4105;G99
Certificates battery	IEC62619-2017;UN38.3;IEC61000-6-2/4

EXAMPLE CONFIGURATIONS

204,8 kWh - 100 kW	2 pcs
307,2 kWh - 150 kW	3 pcs
409,6 kWh - 200 kW	4 pcs
2048 kWh - 1 MW	20 pcs in parallel maximum

CELL POWER

CESS 372



GENERAL INFORMATION

Dimensions (LxWxH)	1300 x 1300 x 2355mm
Weight	~4000kg
Housing	Outdoor cabinet (Anti-corrosion level C4)
Protection rating	IP54
Noise level	≤75dB(A)
Maximum operating altitude	2000m (non-derating)
Thermal management system	Liquid cooling
EMS-functionality	Depends on PCS
Communication interface	CAN 2.0
Off-grid capability	Depends on PCS

BATTERY

Battery technology	LFP (LiFePO4 / Lithium Iron Phosphate)
Nominal Energy	372,7kWh
Nominal Capacity	280Ah
Nominal Voltage	1331,2V
Voltage range (Min. - Max.)	1164,8V ~ 1497,6V
Cycle life @0,5°C/25°C/90% D.O.D.	5000 cycles @ 70% EOL

SAFETY

Fire suppression system	Aerosol fire extinguishing device
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WARRANTY & CERTIFICATES

Warranty	5 years
Certificates battery	UN38.3, IEC62619
Certificates system	UL9540A (rack & module)

EXAMPLE CONFIGURATIONS

Expandability (With distribution cabinet, max 6 connected to one PCS)	
744 kWh	2
1116 kWh	3
1488 kWh	4
2236 kWh	6

CELL POWER

CESS 430 - 200



GENERAL INFORMATION

Dimensions (LxWxH)	2991 x 2438 x 2591 mm
Weight	7,7 t
Housing	10ft container
Protection rating	IP54
Operating temperature	-10°C ~ 50°C (Max. -20 ~ 50°C)
Relative humidity	0% ~ 95% (non-condensing)
Maximum operating altitude	2000m (non-derating)
Thermal management system	Air conditioner
EMS-functionality	Peak-shaving, optimised self consumption, energy trading (optional, controlled externally)
Communication interface	RS485 / MODBUS RTU,TCP
Off-grid capability	Grid-Connected only

INVERTER

Rated / nominal AC power	200 kW
Maximum AC power	250 kVA
Grid voltage	400V
Grid voltage range	340V ~ 460V
AC current	288,6A
THDv	<3%
AC power factor	0,1~1 leading or lagging (Controllable)
AC frequency	50/60Hz ± 2,5Hz

BATTERY

Battery technology	LFP (LiFePO4 / Lithium Iron Phosphate)
Nominal Energy	430 kWh
Nominal Capacity	280 Ah
Nominal Voltage	768V
Voltage range (min. - Max.)	672V ~ 852V
Cycle life @ 0,5°C / 25°C	80% Retention with 5000 cycles

SAFETY

Fire suppression system	NOVEC1230 (K-5-1-12)
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WARRENTY

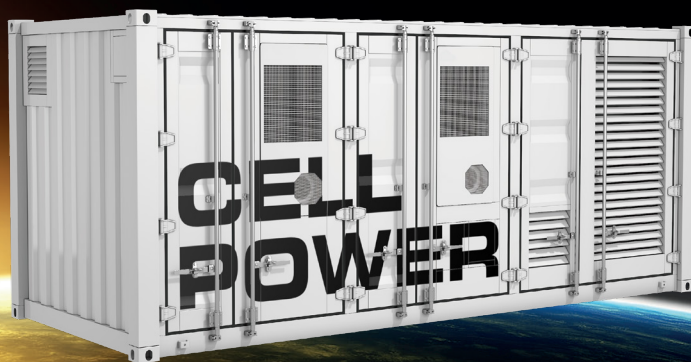
Warrenty	5 years
Certificates inverter	EN50549, EN61000, EN62477
Certificates battery	UL1973, UL9540A, IEC62619, CE, UN38.3
Certificates system	UL9540, UN3536

EXAMPLE CONFIGURATIONS

860 kWh - 400 kW	2 pcs
1290 kWh - 600 kW	3 pcs
1720 kWh - 800 kW	4 pcs
5,2 MWh - 2,4 MW	12 pcs

CELL POWER

CESS 1100-1000



GENERAL INFORMATION

Dimensions (LxWxH)	6058 x 2438 x 2591mm
Weight	19 t
Housing	20ft container
Protection rating	IP54
Operating temperature	-10°C ~ 40°C (Max. -20 ~ 50°C)
Relative humidity	0% ~ 95% (non-condensing)
Maximum operating altitude	2000m (non-derating)
Thermal management system	Air conditioner
EMS-functionality	Peak-shaving, optimised self consumption, energy trading (optional, controlled externally)
Communication interface	RS485 / MODBUS RTU, TCP
Off-grid capability	Off-grid optional

INVERTER

Rated / nominal AC power	1000 kVA
Maximum AC power	1100 kVA
Grid voltage	400V
Grid voltage range	360V ~ 440V
AC current	2 * 721,7A (AC rate of current)
Output THDi	<3%
AC power factor	0,1~1 leading or lagging (Controllable)
AC frequency	50/60Hz ± 2,5Hz

BATTERY

Battery technology	LFP (LiFePO4 / Lithium Iron Phosphate)
Nominal Energy	1100 kWh
Nominal Capacity	180 Ah
Nominal Voltage	768V
Voltage range (min. - max.)	672V ~ 852V
Cycle life @ 1,0°C / 25°C	80% Retention with 5000 cycles

SAFETY

Fire suppression system	NOVEC1230 (K-5-1-12)
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WARRENTY

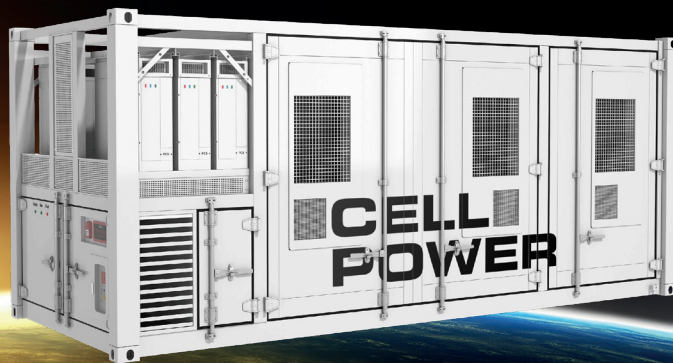
Warrenty	5 years
Certificates inverter	EN50549, EN61000, EN62477
Certificates battery	UL1973, UL9540A, IEC62619, CE, UN38.3
Certificates system	UL9540, UN3536

EXAMPLE CONFIGURATIONS

Maximum expandability (Grid connected UNLIMITED)	
2,2 MWh - 2 MW	2 pcs
3,3 MWh - 3 MW	3 pcs
4,4 MWh - 4 MW	4 pcs
11 MWh - 10 MW	10 pcs

CELL POWER

CESS 2064 – 1000



GENERAL INFORMATION

Dimensions (LxWxH)	6058 x 2438 x 2591mm
Weight	26,5 t
Housing	20ft container
Protection rating	IP54
Operating temperature	-10°C ~ 40°C (Max. -30 ~ 55°C)
Relative humidity	0% ~ 95% (non-condensing)
Maximum operating altitude	3000m (non-derating)
Thermal management system	Air conditioner
EMS-functionality	Peak-shaving, optimised self consumption, energy trading (optional, controlled externally)
Communication interface	RS485 / MODBUS RTU, TCP
Off-grid capability	Grid connected only

BATTERY

Battery technology	LFP (LiFePO4 / Lithium Iron Phosphate)
Nominal Energy	2064 kWh
Nominal Capacity	280 Ah
Nominal Voltage	1228,8V
Voltage range (min. - max.)	1075,2V ~ 1363,2V
Cycle life @ 1,0°C / 25°C	80% Retention with 5000 cycles

SAFETY

Fire suppression system	FK-5-1-12(NOVEC1230)
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WARRENTY

Warrenty	5 years
Certificates inverter	EN61000, EN62477
Certificates battery	UL1973, UL9540A, IEC62619, CE, UN38.3
Certificates system	UL9540, UN3536

EXAMPLE CONFIGURATIONS

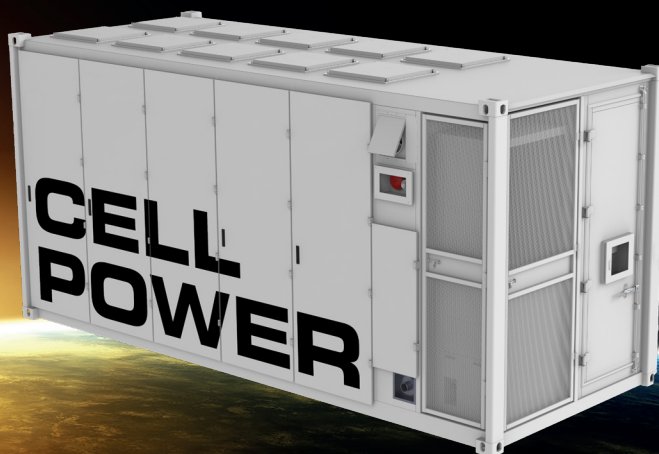
Maximum expandability (Grid connected UNLIMITED)	
4,1 MWh - 2 MW	2 pcs
6,2 MWh - 6 MW	3 pcs
8,3 MWh - 8 MW	4 pcs
20,1 MWh - 20 MW	10 pcs

INVERTER

Rated / nominal AC power	1000 kVA
Maxiumum AC power	1200 kVA
Grid voltage	690V
Grid voltage range	586,5V ~ 759V
AC current	1104,6A
Output THDi	<3%
AC power factor	0,1~1 leading or lagging (Controllable)
AC frequency	50/60Hz ± 2,5Hz

CELL POWER

CESS 3440



GENERAL INFORMATION

Dimensions (LxWxH)	6058 x 2438 x 2896mm
Weight	~37t
Housing	20ft high cube container
Protection rating	IP54
Noise level	≤80dB(A)
Maximum operating altitude	2000m (non-derating)
Operating temperature	Charge: 0 ~ 50°C Discharge: -20 ~ 50°C
Relative humidity	5% ~ 95% (non-condensing)
Thermal management system	Liquid cooling
EMS-functionality	Depends on PCS
Communication interface	TCP Modbus, IEC61850
Off-grid capability	Depends on PCS

WARRANTY & CERTIFICATES

Warranty	5 years
Certificates battery	UN38.3, IEC62619
Certificates system	UL9540A (rack & module)

BATTERY

Battery technology	LFP (LiFePO4 / Lithium Iron Phosphate)
Nominal Energy	3440 kWh
Nominal Capacity	2800Ah
Nominal Voltage	1228,8V
Voltage range (Min. - Max.)	1075,2V ~ 1363,2V
Cycle life @0,5°C/25°C	80% Retention with 5000 cycles

SAFETY

Fire supression system	Aerosol fire extinguishing device
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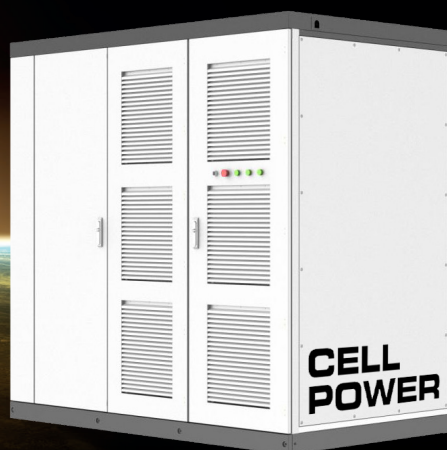
EXAMPLE CONFIGURATIONS

Expandability (Depends on inveter in theory UNLIMITED)

6,9 MWh	2
10,3 MWh	3
13,8 MWh	4
34,4 MWh	10

CELL POWER

CBI 215 - 1725



GENERAL INFORMATION

Peak-efficiency	98,5%
Dimensions (LxWxH)	2200x1300x2160mm
Weight	1700 / 1800 / 1900 / 2000 / 2100 / 2200 / 2300 / 2400kg
Housing	Outdoor cabinet
Protection rating	IP55
Noise level	<75dB
Operating temperature	-20°C to 60°C (De-rating over 45°C)
Relative humidity	0%~95% (non-condensing)
Maximum operating altitude	3000m (>3000m, derating)
Thermal management system	Air cooling
EMS-functionality	Controlled externally via EMS
Communication interface	RS 485, Ethernet, CAN, Modbus TCP/RTU, IEC104, IEC61850
Off-grid capability	Yes, ATS required

WARRANTY & CERTIFICATES

Warranty	5 years
Certificates inverter	EN 50549-2:2019/AC:2019

POWER RATING

Rated / nominal AC power	215 / 431 / 646 / 862 / 1078 / 1293 / 1509 / 1725 kVA
AC Overload Capability	1897 kVA
Grid voltage	690(-15%~10%)V
Rated continuous input / output current	180 / 360 / 541 / 720 / 900 / 1082 / 1262 / 1443A
THDi	<3%
AC Power Factor	0,99/-1~1
AC frequency	50/60 ± 5Hz
DC voltage range	1000-1500V

EXAMPLE CONFIGURATIONS

Maximum expandability (Unlimited in increments of 215kW)

2586 kW	2 x 1293 kW
3450 kW	2 x 1725 kW
4527 kW	3 x 1509 kW

CELL POWER

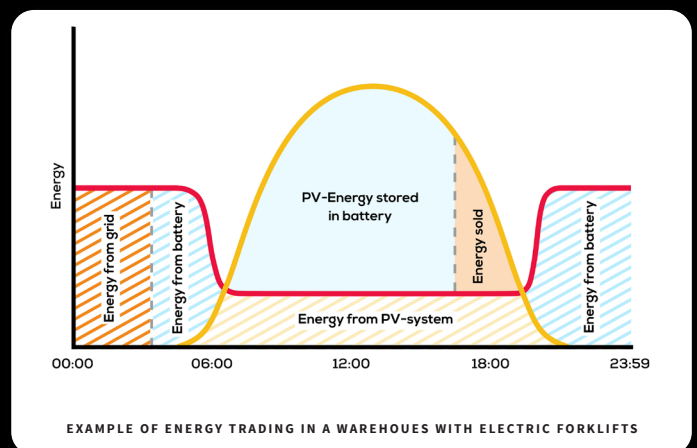
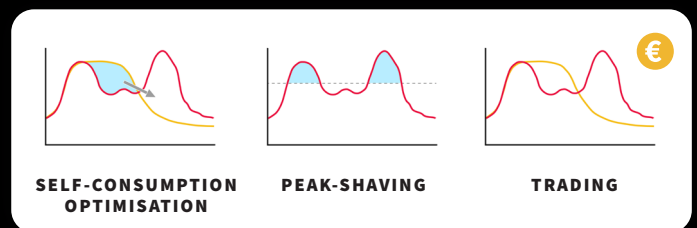
C EMS

The Energy Management System (EMS) we add is produced locally in the Netherlands. On the one hand, this EMS is made for European users and therefore also very suitable for trading on the energy market. On the other hand, we know for sure that all the data we collect stays within our borders, and we determine here in the Netherlands how the battery is controlled. That knowledge is essential, and we like to keep it within our own borders.

The EMS is well suited for the following applications:

(*Optional for this battery)

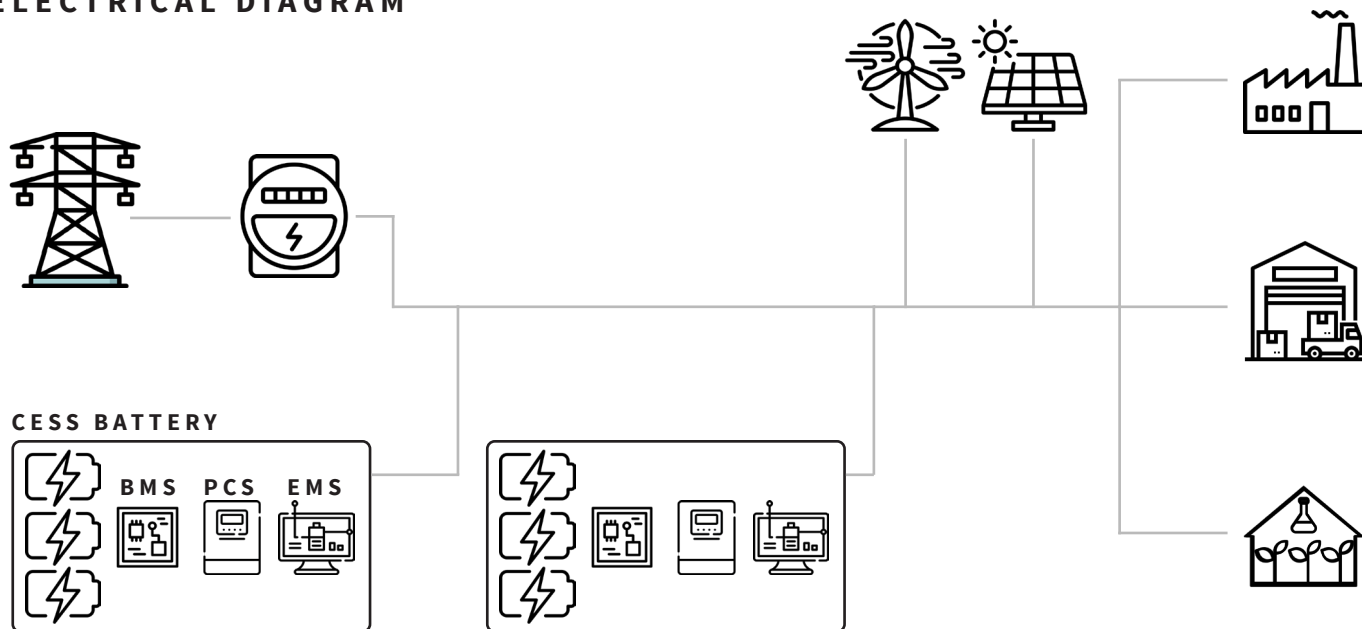
- **Peak-shaving / solving grid congestion**
- **Self-consumption optimisation:** it stores an overcapacity of power generation to use it when needed.
- **Trading*:** trading of energy (FCR or aFRR a.o.)
- **Curtailment*:** the EMS makes sure that the maximum grid connection will not be exceeded. It does this by controlling the power generation and consumption and the EMS alarms on time when needed.
- **Realtime monitoring*:** monitoring of consumption, electricity generation, status, alarms etc. of the battery, power generators and substantial energy consumers.
- **Back-up/ off-grid*:** the battery automatically starts delivering electricity in case of a power failure.
- **Managing different assets*:** optionally the EMS can control other assets as PV, wind, consumption, AI climate optimisation etc. to optimise the electricity generation and consumption.



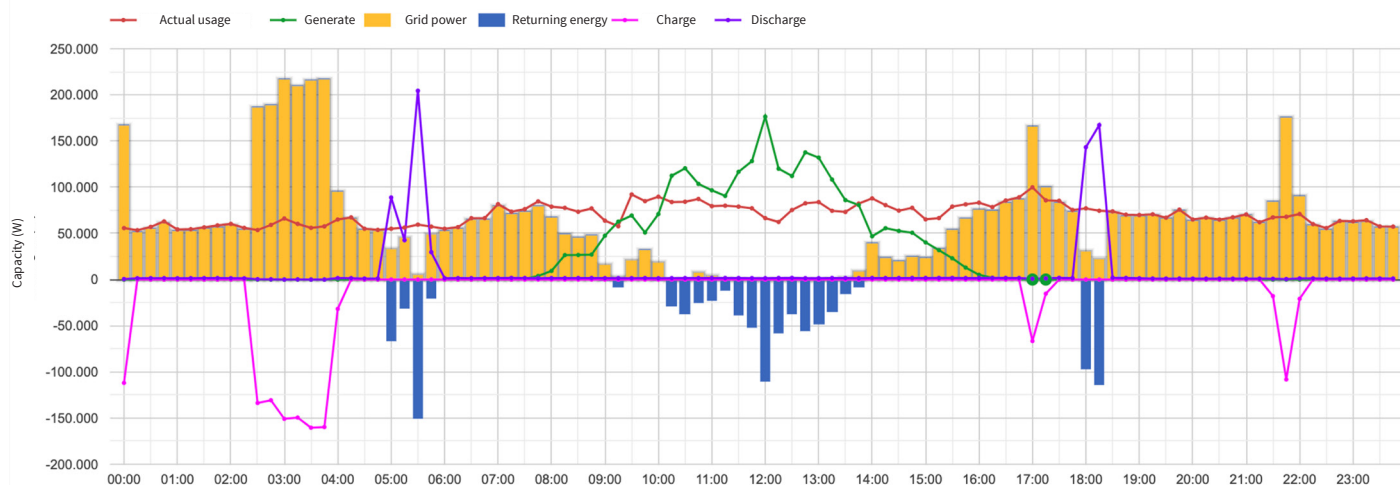
CELL POWER

C EMS

ELECTRICAL DIAGRAM



ENERGY TRADING



CELL POWER

Possible Configurations

