STORE

Optimal use of microgrids.

Reliable power supply with the intelligent CellCube storage system featuring vanadium redox flow battery technology.



The solution for your microgrid.

On-site generation of electricity through decentralized systems, including diesel generators or renewable energy sources, combined with a high-performance, scalable CellCube energy storage system, make microgrids a viable solution for your company's energy needs. CellCube offers uninterruptible power and significant cost savings. GILDEMEISTER energy solutions offers comprehensive support in developing the ideal microgrid solution for you – from semi-autonomous to autonomous.

CELLCUBE - THE COMPLETE TURNKEY ENERGY STORAGE SYSTEM 1. BATTERY AND 2. FLECTRICAL 3. HOUSING AND 4. SYSTEM CONTROL ENVIRONMENTAL MANAGEMENT SYSTEM CONNECTION AND MONITORING CONDITIONING · Vanadium redox flow Voltage conditioning System integration (LV, MV, HV) Temperature management battery · Microgrid system control · Tanks, stacks, pumps, • Charge controller/inverter · Turnkey housing · Microgrid system fluid lines Additional electronics monitoring · Battery management system

FULLY DEPENDENT (0 % ON-SITE POWER)

SEMI-AUTONOMOUS (40 % ON-SITE POWER)

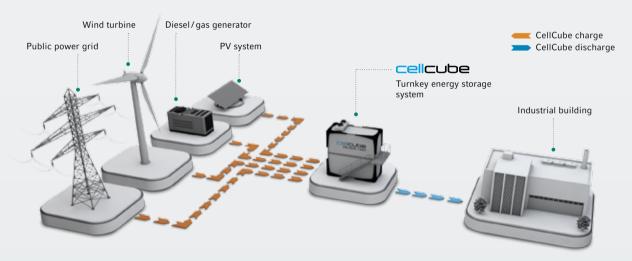
external/grid power only

on-site and grid power combination

AUTONOMOUS (100 % ON-SITE POWER) on-site power only

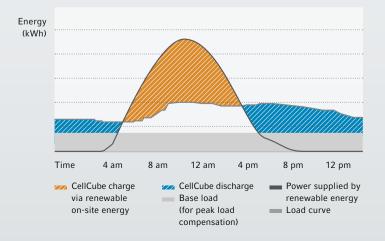
Grid-connected solution – semi-autonomous

In a grid-connected solution, electricity generated on site is stored in a CellCube for use as needed. This allows you to effectively utilize both public and private power sources to maximize cost savings by taking advantage of the most competitive energy utility rates – while maintaining an uninterrupted power supply.



POWER SUPPLY CURVE WITH CELLCUBE

Avoid high utility rates with renewable energy generated on site and stored in CellCube for significant annual cost savings.



Advantages

- Cost savings by avoiding high utility rates
- Reduced dependence on power grid
- · Lower costs with on-site power generation and storage
- Predictable and cost-effective power rates
- Eliminate fluctuating rate pricing

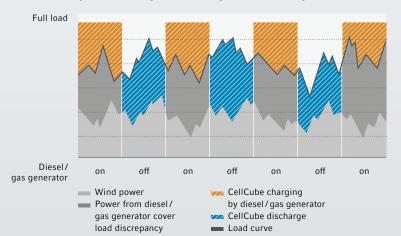
Offgrid solution – autonomous

Where the power supply is unreliable or cost prohibitive, offgrid solutions from GILDEMEISTER energy solutions are ideal. For a wide range of scenarios, including weak infrastructure, hotel facilities, or even entire islands, CellCube energy storage systems combined with diesel/gas generators can reduce costs by over 50 % while ensuring an uninterrupted power supply.



SIGNIFICANT DIESEL COST SAVINGS

Efficient use of diesel/gas generators charge the modular CellCube energy storage system, which is then discharged during generator idling to deliver large fuel cost savings.



Advantages

- Over 50 % lower operating costs through reduced use of diesel
- Diesel generator charges CellCube during primary operation
- Full autonomy from power grid
- · Reliable power supply via scalable CellCube energy storage system

The scalable CellCube energy storage system with vanadium redox flow technology is the heart of an efficient microgrid solution. Thanks to its system integration it can balance out variability in electricity generation and utilization. Targeted management of power production and storage make it possible to achieve an effective drop in energy costs via an independent and stable power







Certified by:







Power	Capacity (kWh)			
10 kW	40	70	100	130
20 kW	40	70	100	130
30 kW	40	70	100	130

Power	Capacit	Capacity (kWh)				
200 kW	400	800	1,600			
1 MW	2,000	4,000	8,000			

BENEFIT FROM OUR EXPERTISE - OVER 100 SUCCESSFUL PROJECTS



Grid-connected solution Freiberg, Germany



Grid-connected solution Pellworm, Germany



Off-grid solution Hakskeen Pan, South Africa



Off-grid solution Bhopal, India

