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The solution provider

Battery use for grid support
and expansion of renewable energy us

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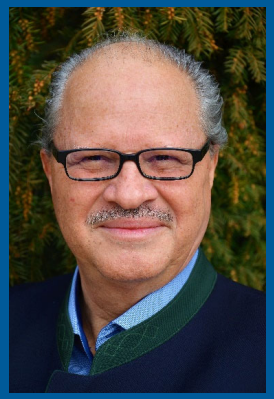

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European Quality

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Additional benefits of batteries by multiple use

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- During the day peaks were utilized at night (autarky – cost reduction)
- Peak shaving and/or shifting – Extension of grids and new cables were reduced Cost reduction and stabilization for grids
- Balancing Energy (pos or neg), expected efforts in Austria ca 150 Mio €/a (strong increase)
- Arbitrage: Use of different prices at the stock exchange, several cycles per day with high performing batteries (sales time with regard to market prices (up to 1.000 Euro p.MWh)
- Black Out security, Cahrgers, UPS function, energy trading
- And much more!

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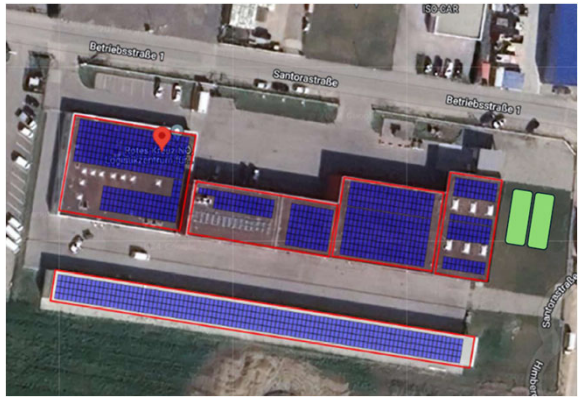
Typical Red Cross disaster prevention relief center

PV – primary direct use
- energy surplus in battery
- excess energy ➡ energy trading stock exchange

Leasing possible

Advantages
- Surplus used during night or for Abitrage
- Battery Black Out prevention, Chargers
- Grid stabilization by control energy (pos. or neg.)
- Immediate cost reduction, 18 yrs fixed price for electricity (09 – 12 Cent)



Batteries for pv2grid

480 kWp (blue),

2,94 MWh Batterie (grün)

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Typical Windfarm Optimization

- WPP – authorization for 1,8 MW cont. feed in

- Yield only wind farm 3,1 GWH per year

- Depending on wind, therfore PV and Battery
  Installation in addition, to enable always 1.8 MW

- Additional yield (without changes toward grid)
  + 2,4 GWh – 12 Ct/kWh
  Additional earnings: € 288.000p.a.

- Invest 1 MWp PV + Battery 1,500.000 Euro ROI <4

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Blackout Container WICON – critical Infrastructure

- Black Out Container – easy setup (prefabricated)
- Operational safety for Seawage plants, rescue station, Town halls, underpasses, emergency quarters, tap water, schools…
- Standard ca 25 kW Power, 277 kWh Battery

- Extension easy up to over 900 kWh and 200 kW

Europe requires much more than 5.000 units

Including subsidies less than € 170.000

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Vanadium Redox Flow - Austrian prodction in next to Vienna

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MADE BY GLOBAL MARKET LEADER

50%+ market share with 140+ projects globally deployed

SAFE

Non-flammable, non-explosible, build-in-safety, no leakage

HIGH PERFORMANCE

Industrial grade heavy duty use, Long-lasting (25+ years and 20,000+ cycles), multi-cycling per day, 100% usable depth of discharge, temperature conditions flexible

Munich RE

BANKABLE

A+ rated warranty insurance decades of validation

EASY TO SCALE

adding power and energy modules when needed

200% POWER OVERRATING

without negative effects on cycles or lifetime

SUBSECOND RESPONSE TIME & up to 24 hrs DISCHARGE TIME

Future proof - widest range of applications
Supply to meet demand from <100 ms response time and up to 24 hrs discharge time

RELIABLE

12+ years in continuous operation

SUSTAINABLE & REUSABLE

No degradation, 25+ year lifetime, re-usable, local assembly, repair friendly, no rare earths, contribution to a Circular Economy

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Economics (typical)

More precise calculations possible after determining the requirements!

	Chemical Battery
2 Cycles per day	ROI ~ 3-6 years
5 Cycles per day	ROI ~2-4 Jahre
Life span	> 25.000 Cykles (> 25 years) (whitepaper available)

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Stationary storage can implement multiple uses according to customer requirements, sizing according to requirements

Secured earnings by several payed grid support and additional possibilities by the battery (Stock market, chargers, Black Out, peak shifting, avoiding grid extension, …..

Thank you for your interest, we would be pleased to

think further together

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