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BECK AUTOMATION

# MULTIFUNCTIONAL POWER STORAGE



electrified by **BMW i.**

THE PACKAGE SOLUTION

# Storage System with original **BMW i3** Batteries

## Target groups:

- Family houses
- Apartment buildings
- Charging stations for E - Mobility
- Agriculture, farms
- Small and medium businesses
- Industrial enterprises
- Grid operators
- Municipal structures

## Applications:

### From small to large systems as a complete solution

We offer besides a standard system with an inverter and a BMW i3 HVS module (8 kW - 42 kWh) also the possibility of flexible connection of several BMW i3 HVS modules.

Available are different sizes with flexible performance and storage sizes, e.g .: 8 kW / 42 kWh, 84 kWh, 126 kWh, ... to 500KW / xxMWh.

By cascading the individual systems we can built "MW energy storage parcs" from small, flexible units, which are grid connected in a container or work as a swarm.


Storage System with 42 kWh battery capacity

Large storage system in container / station construction

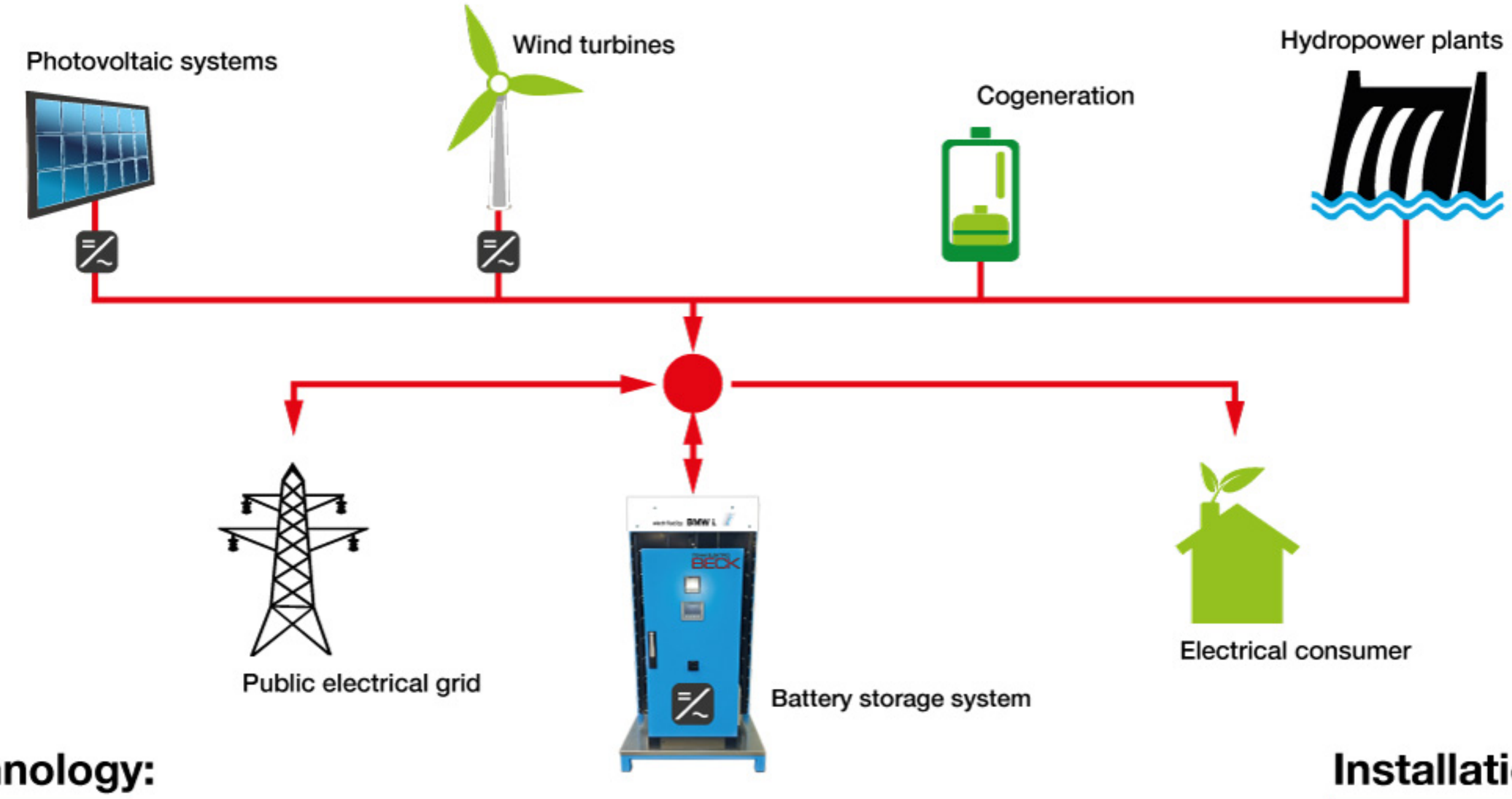
Storage System with 168 kWh battery capacity

A PACKAGE SOLUTION

# Storage System with original **BMW i3** Batteries

## Function / Characteristics:

Size, type and location of generation plants and consumers can be independently designed and installed regardless of the specification of the storage system - as this is connected by AC. It is just necessary to detect the flow of energy at the grid reference point - the energy flow is then regulated by charging or discharging of our intelligent storage system.




## Technology:

- Quality power electronics and control system (Siemens Industry standard components).
- Modern, safe, cell technology of the BMW i3.
- Integration is possible in higher-level control systems / process control.
- Monitoring, control via integrated display and VPN routers.
- Long service life and high cycle stability.
- High system efficiency.

## Installation:

- Installation site: operating rooms, basements, utility rooms.
- Grid connection possible at any point because of AC coupling.
- Suitable for any kind of power generation: PV, wind, cogeneration, hydropower, grid power.
- Construction is modular and scalable.
- Easy transport (cabinet and battery disconnected), therefore no separate transport registration is necessary.

## Available software modules:

- Regulation of PV supported own consumption.
- Energy management for charging stations.
- Load shedding, load transfer.
- Primary control power (in cooperation with energy companies).
- Remote access, data logging and maintainability over the Internet with VPN - connection.
- Peak-shaving, i.e. limiting the load peaks in an average over 15 minutes to avoid increased network charges for service provisions to the energy supplier.

FOR A DIVERSITY OF APPLICATIONS

# Technical Data Battery Storage System

## BMW i3 Battery:

| | |
|---|---|
| Nominal Capacity: | 42 kWh up to xxx MWh cascadable |
| Battery Manufacturer / Type: | original Battery from the BMW i3 |
| Technology: | High Voltage Battery with Lithium-Ion Cells |
| Depth of discharge (DOD): | 87% |
| Safety: | BMW i3 Automotive Safety Standard |
| Capacity Guarantee by BMW: | 10 Years * |


+

## BECK Power and Control Unit:

| | |
|---|---|
| Output AC Inverter: | from 8 kW up to xxx MW cascadable |
| Mains Supply: | 400 V AC 3 - phase |
| Allowed Battery Connection: | BMW i3 High Voltage Battery |
| System Guarantee by BECK: | 5 Years * |
| Visualisation, Data Evaluation: | Via Web Portal and Local Display |
| System Access/ Remote Control: | Via Webbrowser with PC, Tablet, Smartphone |
| Possible Functionality: | Regulation of PV supported own consumption, Limiting of Peak Loads, Operation in Isolated Networks |
| Options: | Rack for Assembly with Battery, complete Container solutions |




electrified by BMW i.

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* Please refer to our warranty conditions