

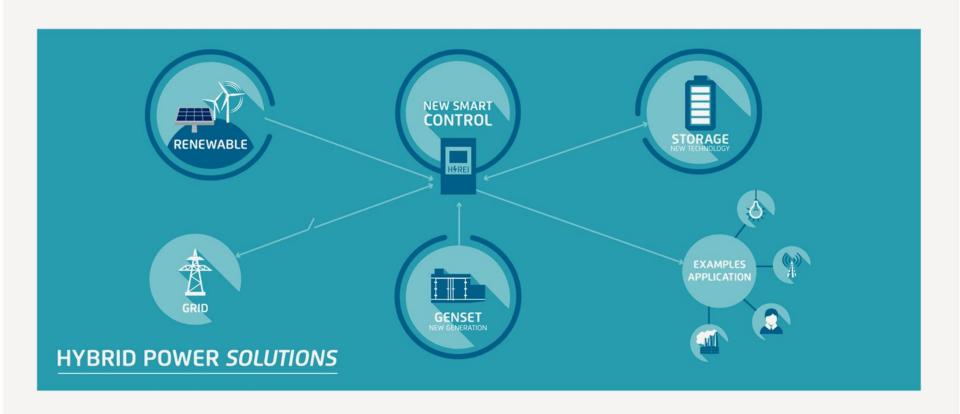
HyREI

New Hybrid Power Solutions



Kad3 Group _System integrator









Efficient and Smart Converter for Off-grid and Grid-connected applications



Up to 90% consumption saving



24h availability



optimized management



DC coupling AC coupling



voltage stabilization



modular cases



self-learning system



simultaneous use renewable energy sources









HyREI small

- √ 1-10 kW off-grid and/or grid-supported solutions
- ✓ Storage based applications
- ✓ Renewable stand-alone (genset off/grid off) mode*
- ✓ Direct line conversion (Renewable/battery mode → genset backup mode without interruption)



HyREI Dynamic

- √ 10-1000 kW (and more) off-grid and/or grid-connected solutions
- ✓ True Hybrid configuration (Genset + PV) WITHOUT battery storage
- ✓ Optional storage plug
- ✓ Renewable stand-alone (genset off/grid off) mode*
- ✓ Bidirectional mode*





HyREI Small_ added value



- ➤ All in one (converter + charge regulator + control and monitoring system)
- > Modular and scalable
- > Easy generator coupling
- ➤ Adaptable to whatever you want (Smart
 Generator Mode → Hybrid Mode → Full
 Renewable Mode)





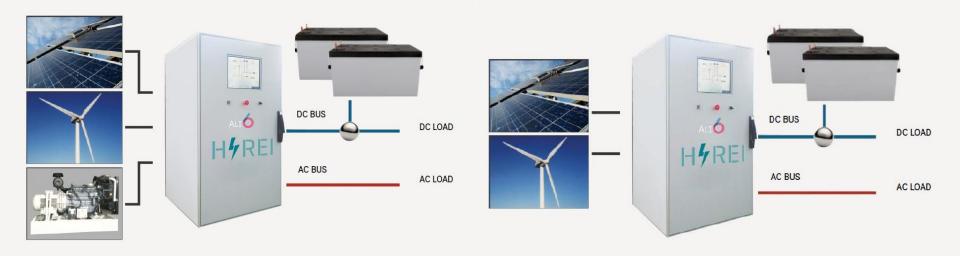
HyREI Small solutions

1. SMART GENERATOR MODE



2. HYBRID GENERATOR MODE

3. FULL RENEWABLE MODE







HyREI Small _Off-grid applications

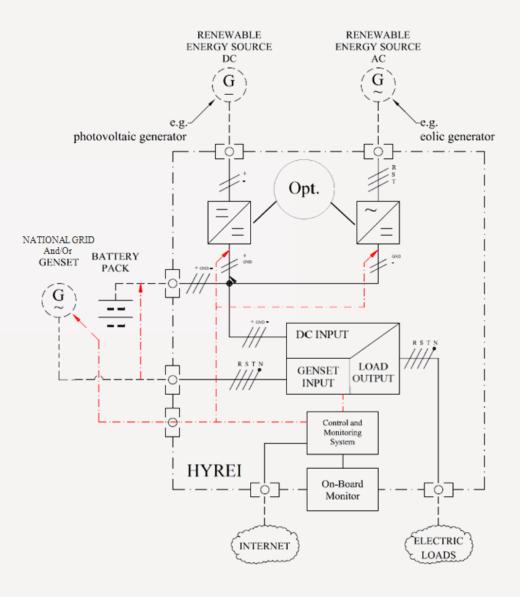






HyREI Small scheme









HyREI Dynamic _ added value

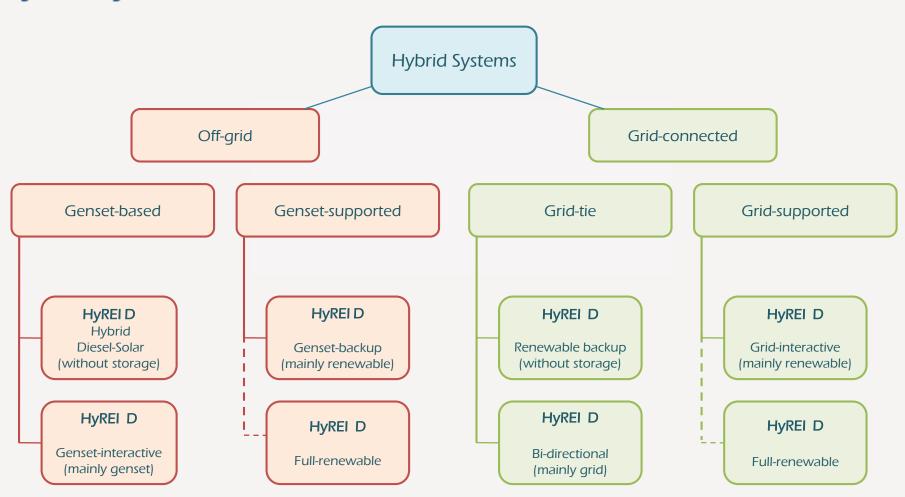


- ➤ Off-grid / Grid-connected mode
- ➤ Genset-PV without storage
- ➤ Smart converter self power control
- ➤ Suitable for all renewable power generators
- ➤ Plug & Play
- ➤ New Hybrid solutions





HyREI Dynamic Solutions







HyREI Dynamic Off-grid applications

Remote areas (no electrification)



Islands



Mines



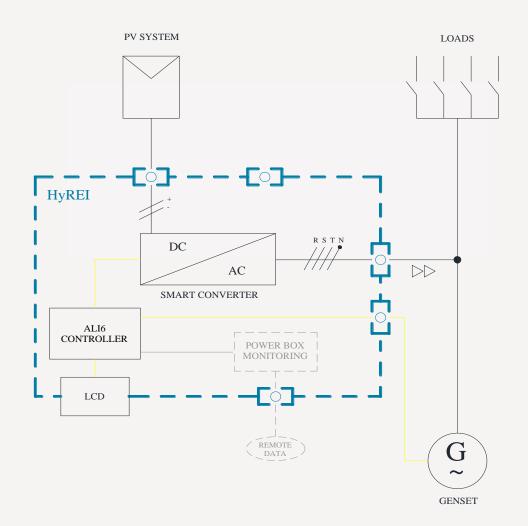
Malls, logistics hubs,...







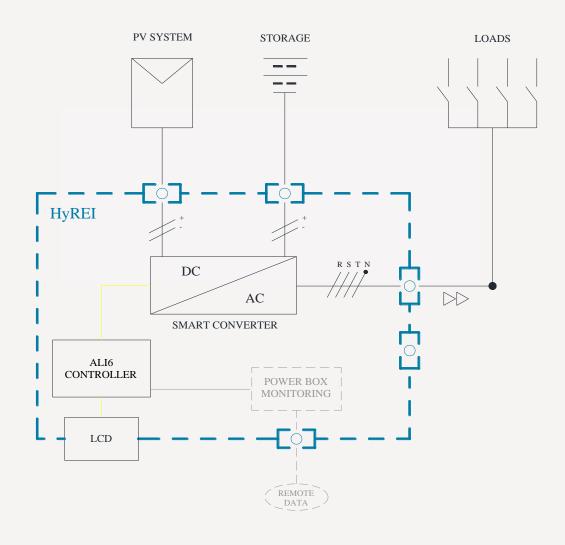
HyREI Dynamic _Hybrid Diesel-Solar (without storage)







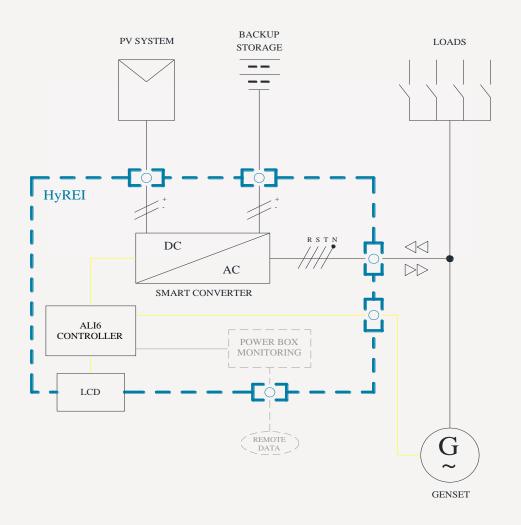
HyREI Dynamic _Full renewable stand-alone mode







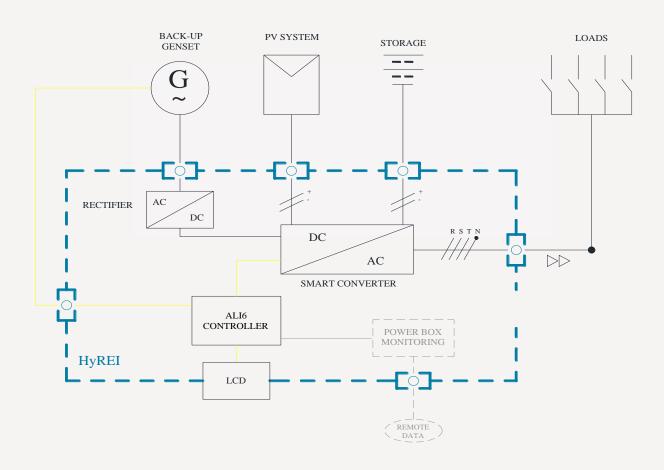
HyREI Dynamic_genset interactive mode (mainly genset)







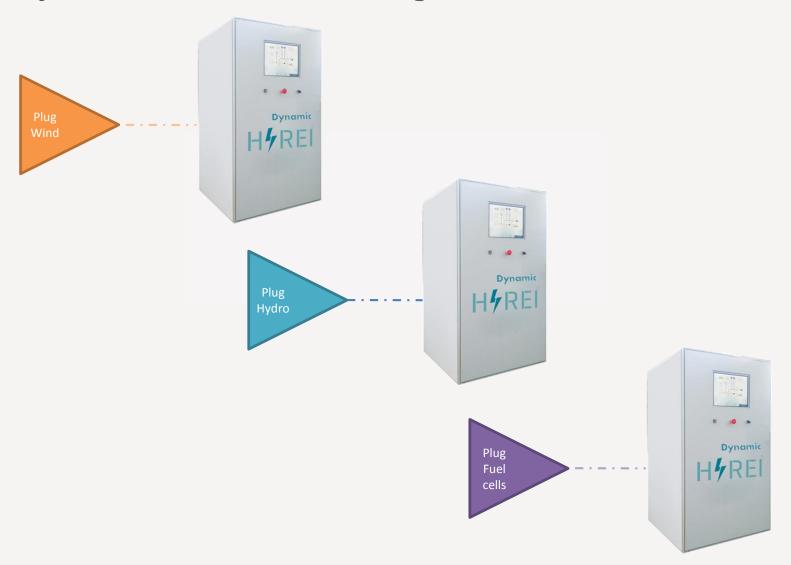
HyREI Dynamic_genset back-up mode (mainly renewable)







HyREI Dynamic _suitable for all renewable generators

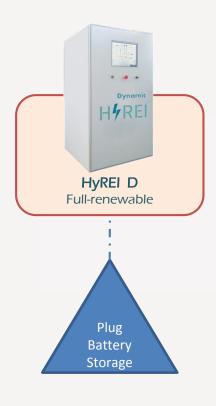


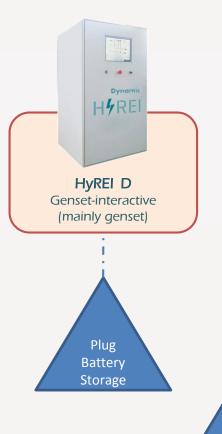


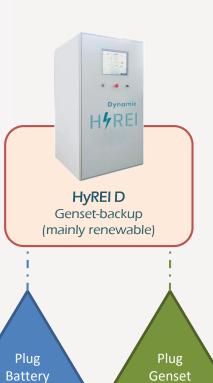


HyREI Dynamic _Plug & Play









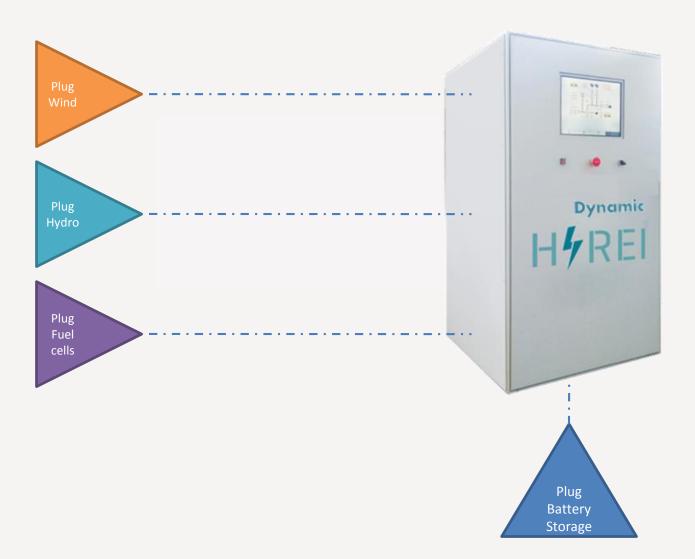
Storage

Backup





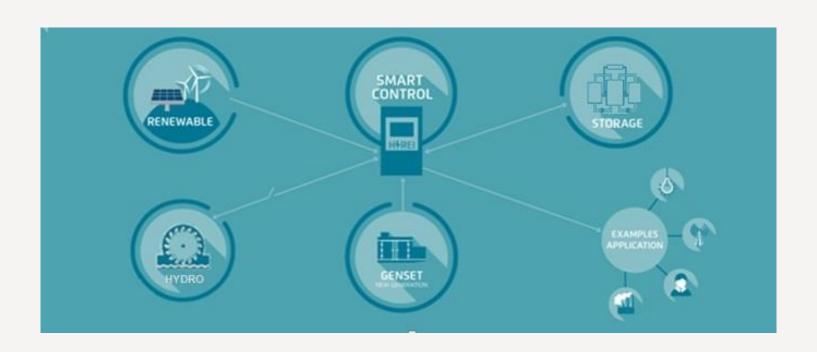
HyREI Dynamic _Wind-Hydro-Fuel cells plugs







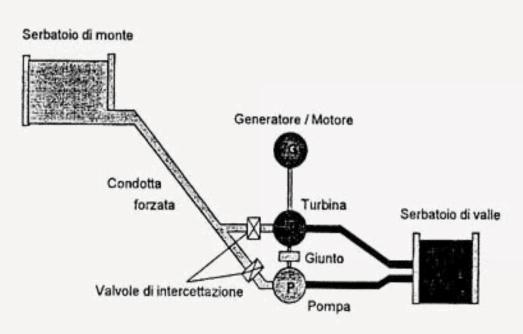
New Hybrid Hydro-VRFB Solution



New Hybrid Hydro-VRFB Solution

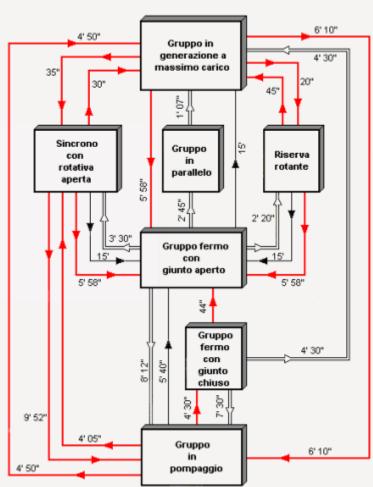


Hydro pump storage system



Pump starting time: 8-9 min* Turbin starting time: 5-6 min*

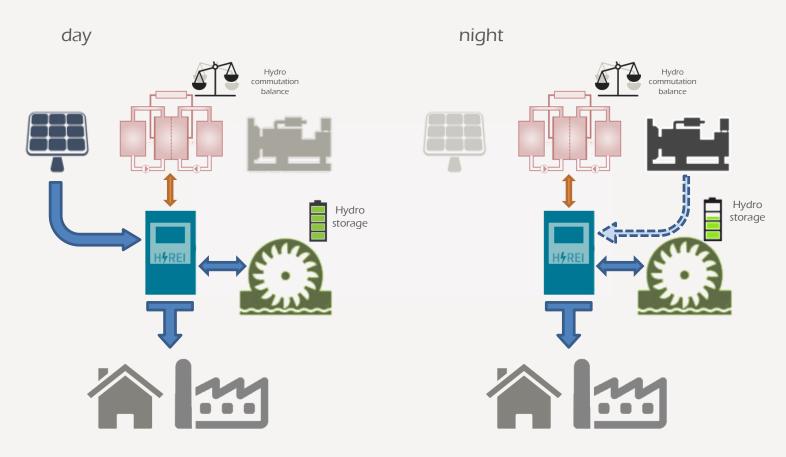
Pump → turbine commutation time: 4-5 min*
Turbine → pump commutation time: 6-7 min*







Hydro-VRFB storage system



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