

SMART HYDROGEN HUB

TRIGENERATION AND DECARBONIZED MOBILITY

A compact hydrogen solution allowing 100% energy auto-consumption and zero emissions mobility.



Main features

- Green energy and transport
- On and Off-grid
- Full consumption of RES* production
- Up to 100% autonomy
- Combined cooling, heat and power:
 - Scalable power (from kW to MW)
 - Hot water and low temperature heating (40°C to 70°C)
 - Air conditioning & refrigeration (4°C to 20°C)

**Renewable Energy Sources*

BENEFITS



Environmentally friendly

- Green power, heat and cooling
- Decarbonized mobility
- No harmful chemical pollutants
- No risk of fuel leakage vs diesel



Low maintenance

- 1 maintenance visit per year
- Without fuel logistics (on-site hydrogen production)
- No fuel degradation over time vs diesel



Economic model

- Return on investment thanks to:
 - important energy savings
 - reduced fuel bill
- Leasing



Easy to install

- Plug and play
- Indoor/outdoor
- Intuitive mechanical and electrical interfaces



Reliable & Efficient

- Electrical efficiency around 50% (better than diesel generators)
- Energy efficiency above 75%
- Technology diversification (PV + lithium + hydrogen) for high reliability and availability

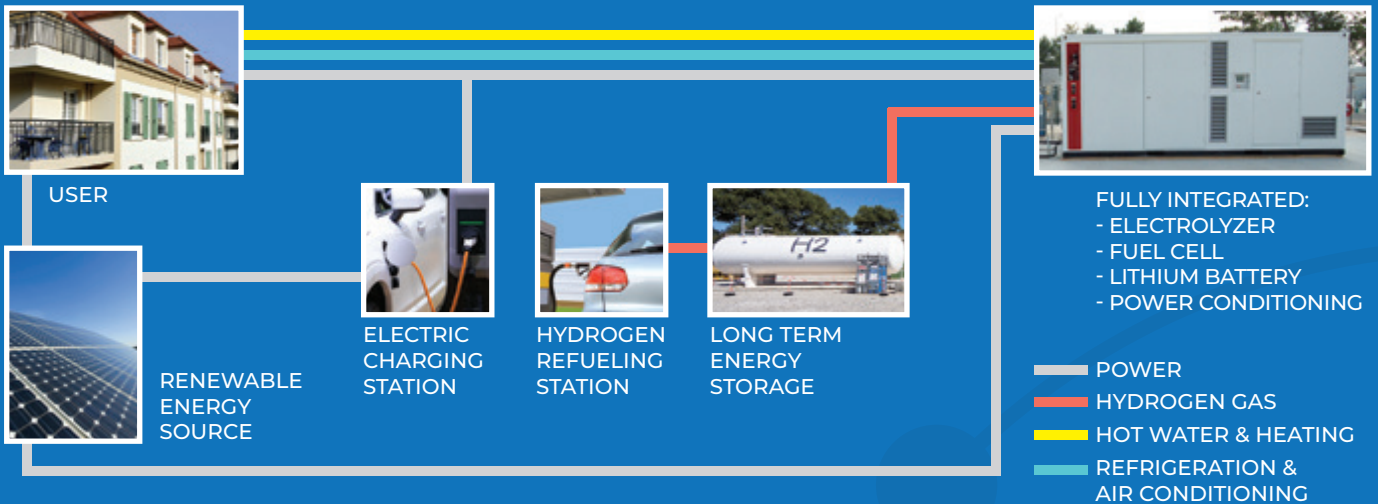


Compact

- Fully integrated solution: 10ft, 20ft or 40ft container
- Optimized footprint with high pressure H₂ storage

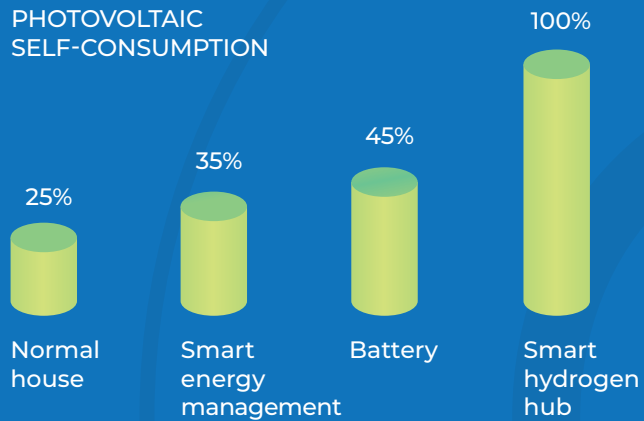
Helion
HYDROGEN POWER
by **ALSTOM**

A HYDROGEN MULTI-USE SOLUTION...



... TO BOOST YOUR PHOTOVOLTAIC SELF-CONSUMPTION FOR MOBILITY AND ENERGY NEEDS

PHOTOVOLTAIC SELF-CONSUMPTION



TARGETED MARKETS



Supermarkets



Smart buildings / districts



Luxury hotels



Remote sites



Hospitals



Data centers

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