H2BRIX

Let's store
ENERGY

THE MODULAR AND FLEXIBLE LONG TERM ENERGY STORAGE

BRICK BY BRICK

Micro-grid and H2 refill solution

H2BRIX

is the new H2planet modular concept for hydrogen plant systems.

Thanks to its modularity the system could be developed according to customers needs and goals with the maximum flexibility and versatility.

The Project is modular!

The hydrogen plant system is divided in conceptually different parts, each one with its own purpouse:

CONVERT, STORE, POWER and REFILL.

Depending on the goal of the system,
Energy could be released to the Grid or used to directly charge Electric Vehicles.

In the first case, the system will consist of the following modules:

CONVERT

STORE

POWER

In the second case, the system will consist of the following modules:

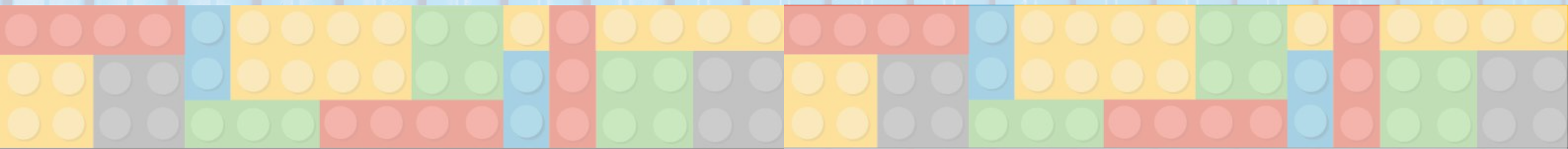
CONVERT

STORE

REFILL

Hybrid systems could be obtained with all these modules, in order to fulfill both targets.

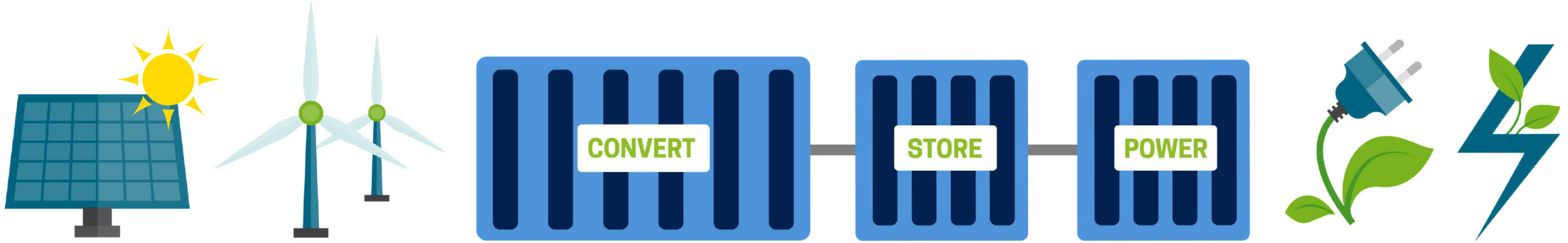
Each module represents a different process.
Each process is installed in a different Container.



CONVERT module: Electricity generted from renewables is converted in Hydrogen (chemical energy) and sent to the STORE module.

STORE module: Hydrogen (chemical energy) is compressed and stored in pressurized tanks for future usage.

POWER module: Hydrogen (chemical energy) is picked up from STORE module and converted in Electricity to the Grid.



CONVERT

Electrolysis process will generate Hydrogen from Elecricity.

The produced Hydrogen needs to be purified in order to remove moisture and reach a higher grade.

This process is achieved with Electrolyzer and Purifier devices installed in this container.


SC1
SC2
TKO


PICO la cassetta più GRANDI e ROBUSTE!
new chiusura 1/4 di giro con

STORE

Compression process uses compressed Air to boost Hydrogen compression.

The compressed Hydrogen is stored in pressure tanks.

This process is achieved with Compression skid and Pressure Tanks installed in this container.

Compressed Air is generated in the CONVERT module and transferred to the skid.

This container is entirely ATEX certified.

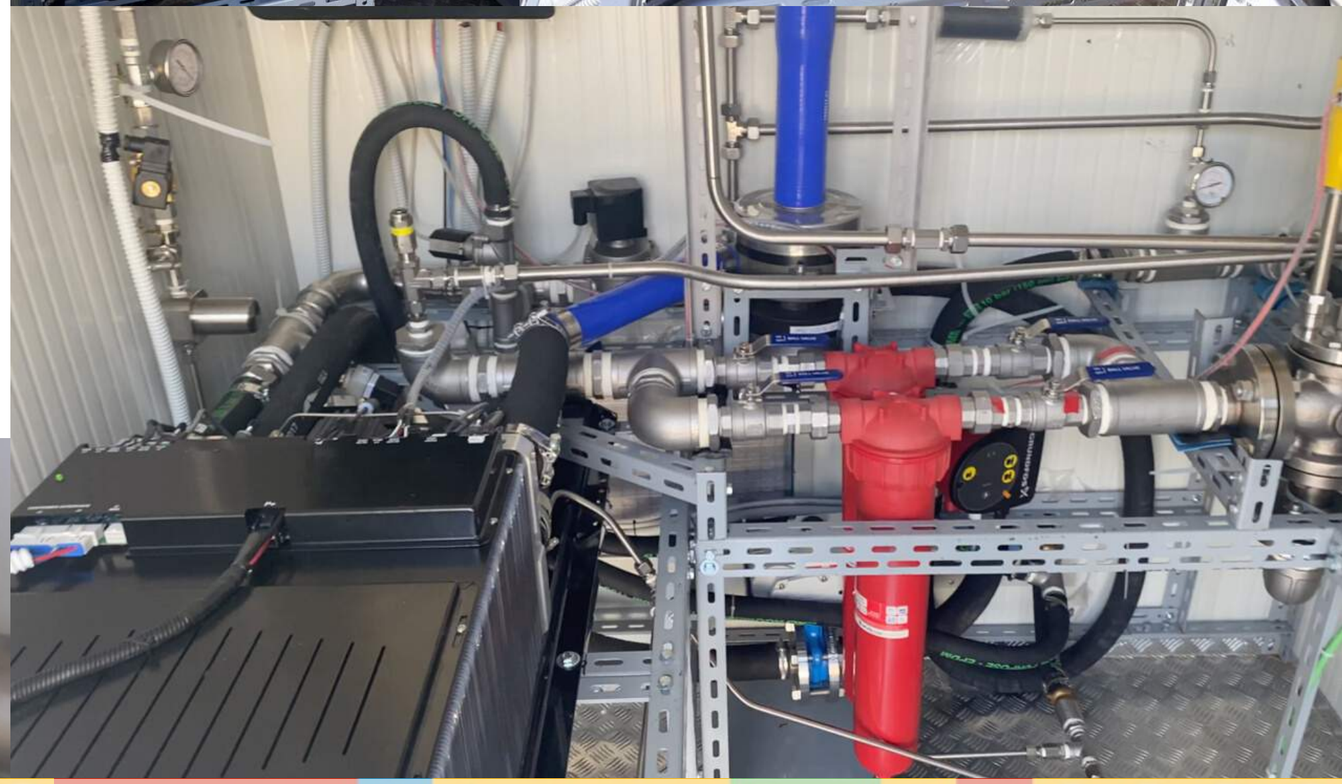
POWER

Hydrogen is used to generate Electricity and heat as a by-product. A Fuel Cell system is installed in this container as a cogenerator.

Hydrogen is taken from the STORE container and a pressure regulator decreases the pressure.

An Inverter is installed in this container in order to convert the output of the Fuel Cell (DC) into an AC output to the Grid.

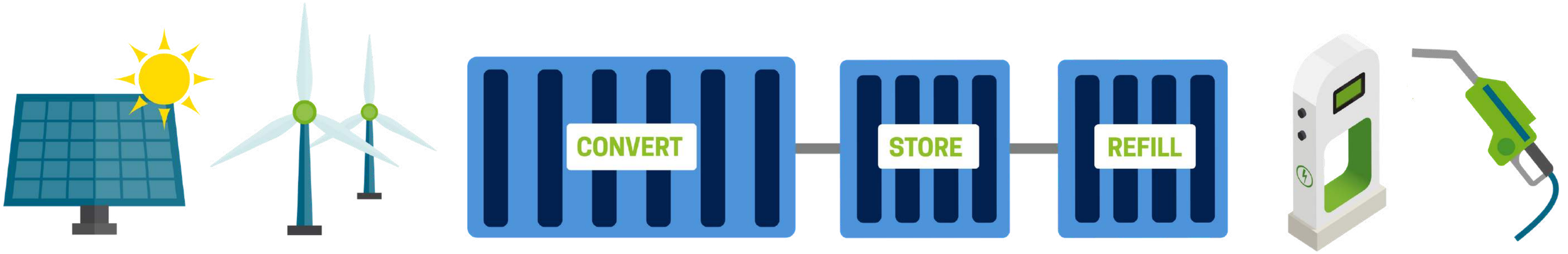
The Fuel Cell is water cooled, thus generated heat is recovered with a heat exchanger.



CONVERT module: Electricity generted from renewables is converted in Hydrogen (chemical energy) and sent to the STORE module.

STORE module: Hydrogen (chemical energy) is compressed and stored in pressurized tanks for future usage.

REFILL module: Hydrogen (chemical energy) is picked up from STORE module and used to refill Electriv Vehicles.



REFILL

Hydrogen is used to generate Electricity.
A Fuel Cell system is installed in this container.

A Charging Column for Electric Vehicles is installed here.

A DC-DC converter rise the DC voltage produced by the Fuel Cell, in order to support the Fast Charge Mode in DC

Also in this module, generated heat could be recovered.

EASY INSTALLATION

Modules allow an
easier transportation
to the customer's site.

Modules are placed
in their final position.

Installation consists
in just connecting each module
together.


Let's store
ENERGY
Store


h2planet
staff@h2planet.eu