

A woman with her arms outstretched, wearing sunglasses, a white lace crop top, and dark pants, stands on a sandy beach. The ocean waves are visible in the background under a blue sky. A large white curved shape is overlaid on the bottom right of the image.

H2planet

H2planet,

Start-up

Progress

Projects

Hydro2Power SRL was born in 2004 thanks to two awards in technological innovation received from the Politecnico di Milano and the Provincia di Milano. It's the first company in Europe specialised in hydrogen & methanol fuel-cell applications, integration, manufacturing and installations. The company manufactures **the first hydrogen fuel-cell plug&play products line for backup and off-grid use Powerbox and Powercell GreenHub.**



w w w . h 2 p . i t



- Corporate training, professionals, local authorities, junior high schools, high schools and teachers.

- Feasibility analysis, design, installation of 1kW-60kW fuel cell.

- Fuel cell information: free newsletter, first fuel cell magazine in Italy, H2P News.

- Production and sale of demonstrative fuel-cell and full back-up systems, robotics, electronics, home automation, etc.

- Hydrogen gas supply services and hydrogen generation systems

- Fuel cell installations, components and materials.

Our customers

Our customers - *PROFESSIONAL AND LAB PRODUCTS:*

Electrolux Italia

Edison

Giacomini

Oasi WWF

Vectrix Europe

SAITEL Telecomunicazioni

Cinenane

Ve.Ghi.Gas

AT Energy

Sei

Veco

Lab

European Institute for Energy Research

CNR

INGV

Università di Milano

Politecnico di Milano

...and 350 other public and private entities



Our customers

Our customers – FUN&EDU AND LIFESTYLE PRODUCTS

Beghelli
MrPrice
Compro e Dono
Eplaza
Lifegate
MS Electro
Selegiochi
Eni
CHL
Bow
Arval Service Lease
Jakala Marketing
Promoplast
Idroelettromeccanica
Portale del sole
...and 200 other public and privat entities



2007

Hydro2Power SRL started expanding proper market in Spain thanks to the H2planet commercial brand through the first exclusive affiliate in Orduna (northern part of Spain).

The company has 2 full time staff people who work at H2planet affiliate named Hidrogenos del Nervion SL in order to create new markets for sales as H2planet Exclusive Reseller for whole Spanish territory.



- The Spanish market enjoy in 2007 excellent economic growth which has guaranteed from the beginning high sales level.
- Although the economic decline in 2010 the Spanish market is much more dynamic and fuel cell friendly than the Italian one.
- Spain continues to create sales as H2planet affiliate

2009

Hydro2Power SRL designed and manufactured the first hydrogen fuel-cell plug&play products line for domestic and professional backup GreenHub Made in Italy.



- Fuel cell gensets GreenHub were successfully sold in Italy, France, Sweden, Hungary, Poland, South Korea, Brasil, etc.
- 2009 was realized the first fuel cell hotel powered by GreenHub in collaboration with Giacomini SpA.
- GreenHub was successfully presented on the markets in Russia, China and India.

2009

Hydro2Power SRL became Exclusive Reseller for Italy of methanol fuel cell generators EFOY ProSeries produced by SFC AG (Germany).

Pro Series
Made by SFC

Il tuo distributore
per l'Italia



2010

Hydro2Power SRL assembled and realized the first Made in Italy portable fuel cell generator series for camper, camping, yachts, emergency, etc.



- Production and sale of demonstrative fuel-cell and full back-up systems, robotics, electronics, home automation, etc.

- Hydrogen gas supply services and hydrogen generation systems

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2011

Hydro2Power SRL projected and realized the first metal hydrides canister for hydrogen low pressure storage named MyH2 for safe use in various sectors, e.g. medical branch.

Investments and commerciale expansion were concentrated abroad, Eastern Europe, Asia, Russia.

The first H2planet Store with hydrogen and fuel cell products in the centre of Milan was inaugurated.



2012

Hydro2Power SRL appoints salespeople representatives for H2planet Mexico and Latin America offices in Mexico City.



Since 2012 the new headquarters in Mexico generate fruitful business for the company wide opening new doors and opportunities for the company with supplies to the most important Mexican and Latin American companies, universities, research centers, etc.

2013

Hydro2Power SRL appoints salespeople representatives for **H2planet Brazil** in Curitiba.



Since 2013 the new headquarters in Brazil produces interesting sales opportunities with good sales opportunities mainly for public telecommunication companies, universities, research centers with many interesting installation projects of both fuel-cell gensets and electrolyzers.

2014

Hydro2Power SRL appoints salespeople representatives for **H2planet Japan** in Fukuroi.



Since 2014 the new headquarter in Japan generates interesting sales opportunities especially for remote area monitoring and telecommunications projects based on methanol fuel-cells and good opportunities for hydrogen remote production projects.

Applications

Back-up & UPS

Houses

Industry

Server farm

Telecommunications



Applications

Electronics



Situation

Company which is specialized in filming of action scenes. Camera car (Smart) with a robotic arm that can follow the progress of the scene.



Problem

Energy needed to control the robotic arm, the rotator and zoom the camera. No possibility to install the batteries because they are too heavy and bulky or diesel generators for obvious reasons.



Solution

Fuel cell system Plug & Play 300 W maximum power with a metal hydride cartridge of 450l of H₂ delivering 1 hour and 25 minutes (in comparison to 20 minutes of the batteries). Not bulky, weight less than 15 kg.

Applications

Robotics/Home automation



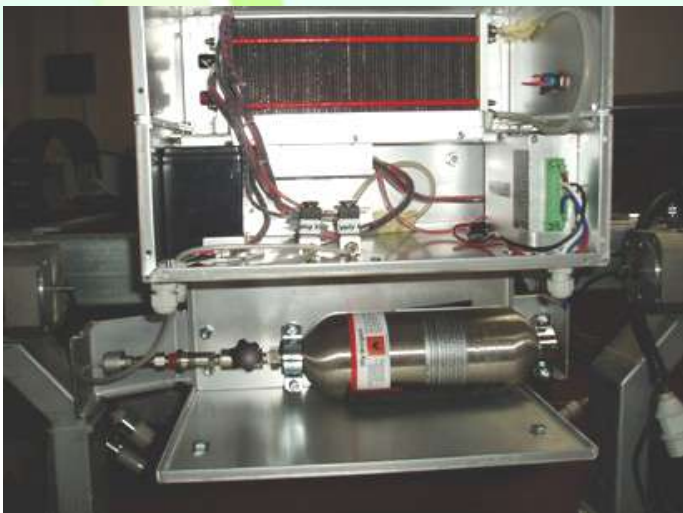
Situation

Agricultural company which is specialized in the cultivation of saffron.

Machine for the extraction of saffron, very delicate and important task.

Problem

Energy needed in order to supply power to this particular agricultural machine. No batteries due to excessive weight, no polluting generator.



Solution

Fuel cell system 300 W maximum power with a metal hydride cartridge with 450l of H₂ which was installed on the vehicle (see the photo) light and portable, one hour autonomy.

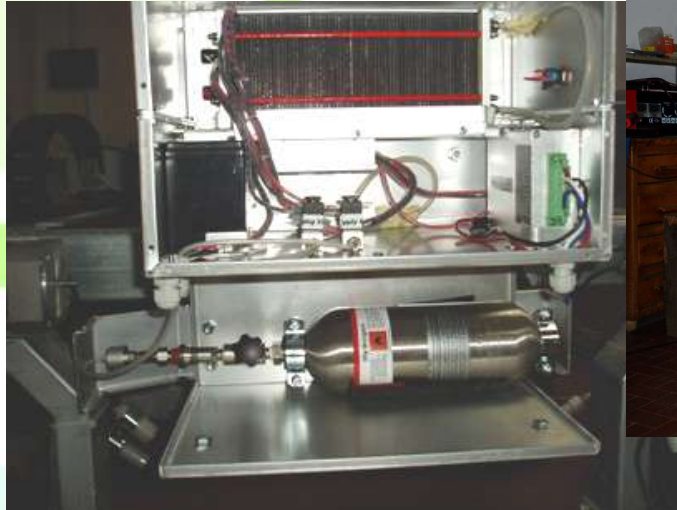
Applications

Electric vehicles and forklifts



Applications

Electric vehicles and forklifts



The figure above shows an application of robotics created by H2planet: This is a robot dedicated to the collection of saffron and other agricultural activities of various type: in this case the autonomy and the lack of polluting emissions were the determining factors in the selection of hydrogen technology.

Applications

Surveillance and remote monitoring

Shelters for emission measurement of volcanos: Etna and Vesuvio in order to foresee eruptions and earthquakes. The scientific measurement electronic devices are fed by methanol fuel-cell to guarantee the continuous battery charging (in winter and during the eruptions)



Applications

Surveillance and remote monitoring

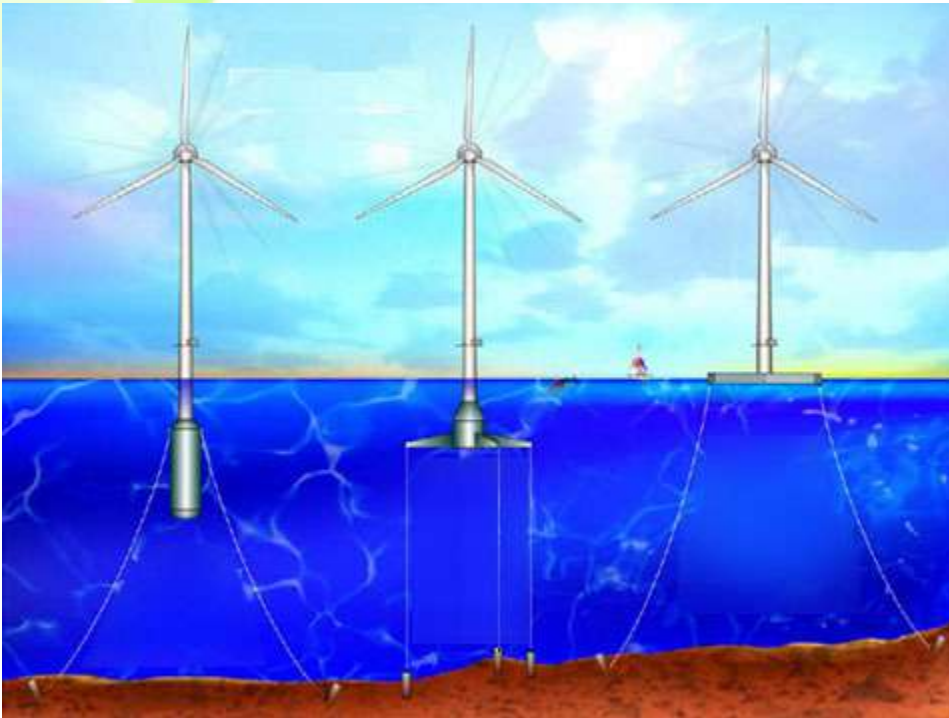
Experimental buoy near the coast of Santander (Spain) for monitoring of environmental conditions of the maritime tract



Applications

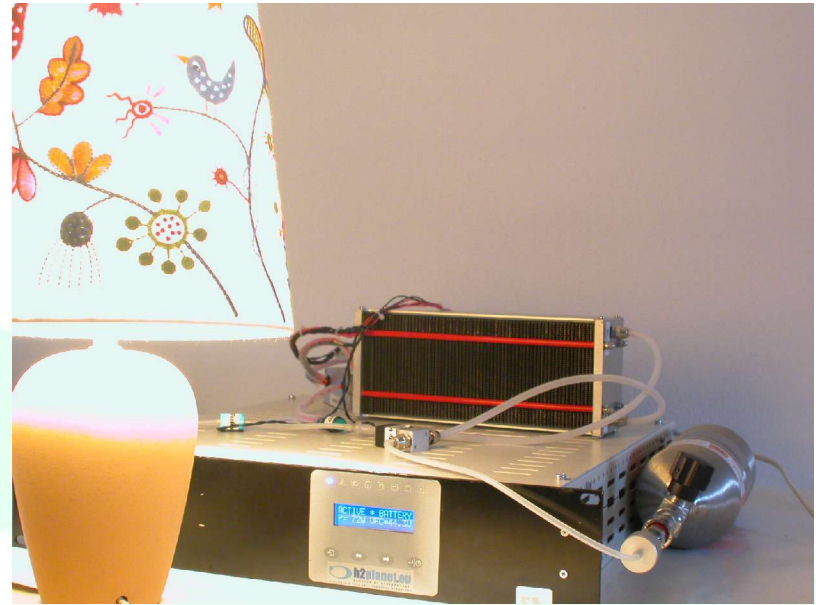
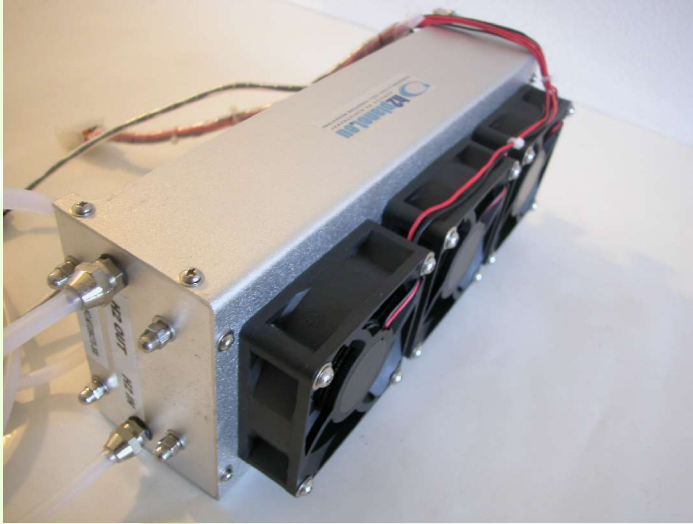
Surveillance and remote monitoring

The main goal of this project is the monitoring of weather and environmental conditions in order to verify the feasibility of installing an offshore wind farm for the production of renewable energy



Applications

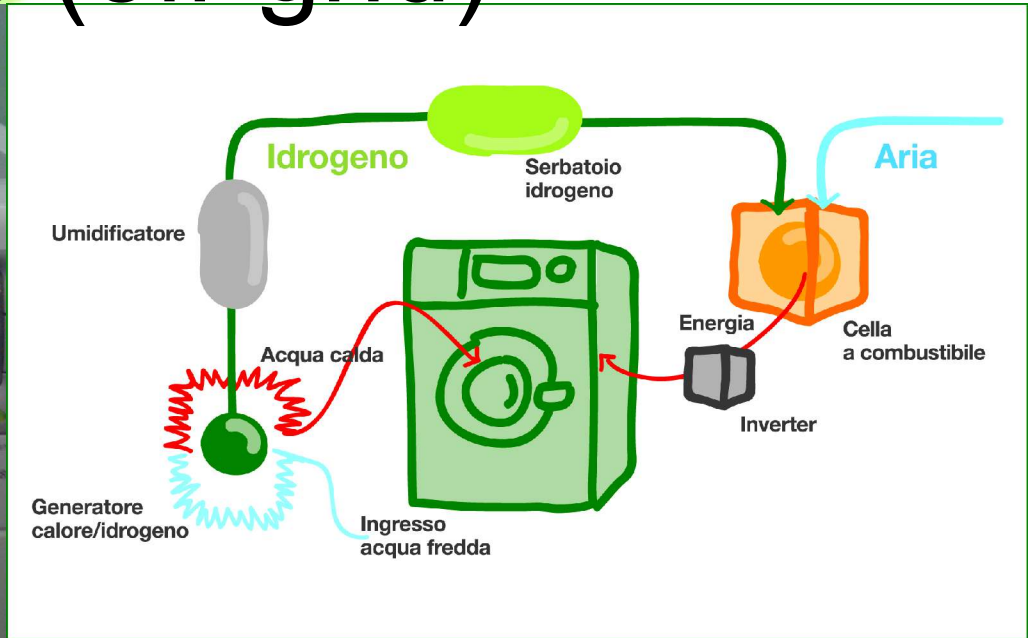
Remote houses (off-grid)



In this case, the fuel cell stack 300 W with his inverter and the cylinder 450l of H₂ is illuminating an entire cabin with LED technology!

Applications

Remote houses (off-grid)



Applications

Remote houses (off-grid)

Hydrogen features 2 principal functions in case of remote locations:



- 1) UPS system: continuous feeding of loads for total reliability at grid failure,
- 2) With renewables energy sources: the system keeps constant voltage without any fault of the power grid which is common in case of the simple solar and wind power systems.

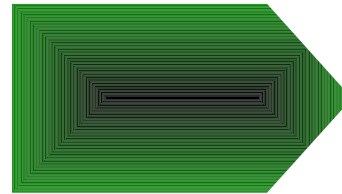


Dimensioning

Technical

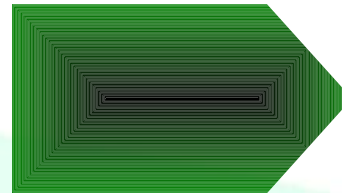
HOW TO DESIGN THE ENERGETIC DIMENSION OF A COMPLETE HYDROGEN SYSTEM? WHICH ARE THE CRUCIAL FACTORS?

How much autonomy is required?
Hours, days, weeks ...?
e.g.: 8 hours required



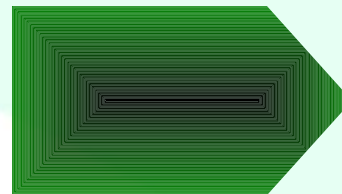
STORAGE SYSTEM
(CYLINDERS)

What the maximum power (peak)?
e.g.: 8 hours at 200 W



FUEL CELL
SYSTEM

How often do you need that
autonomy?
e.g.: 8 hours every week at 200 W

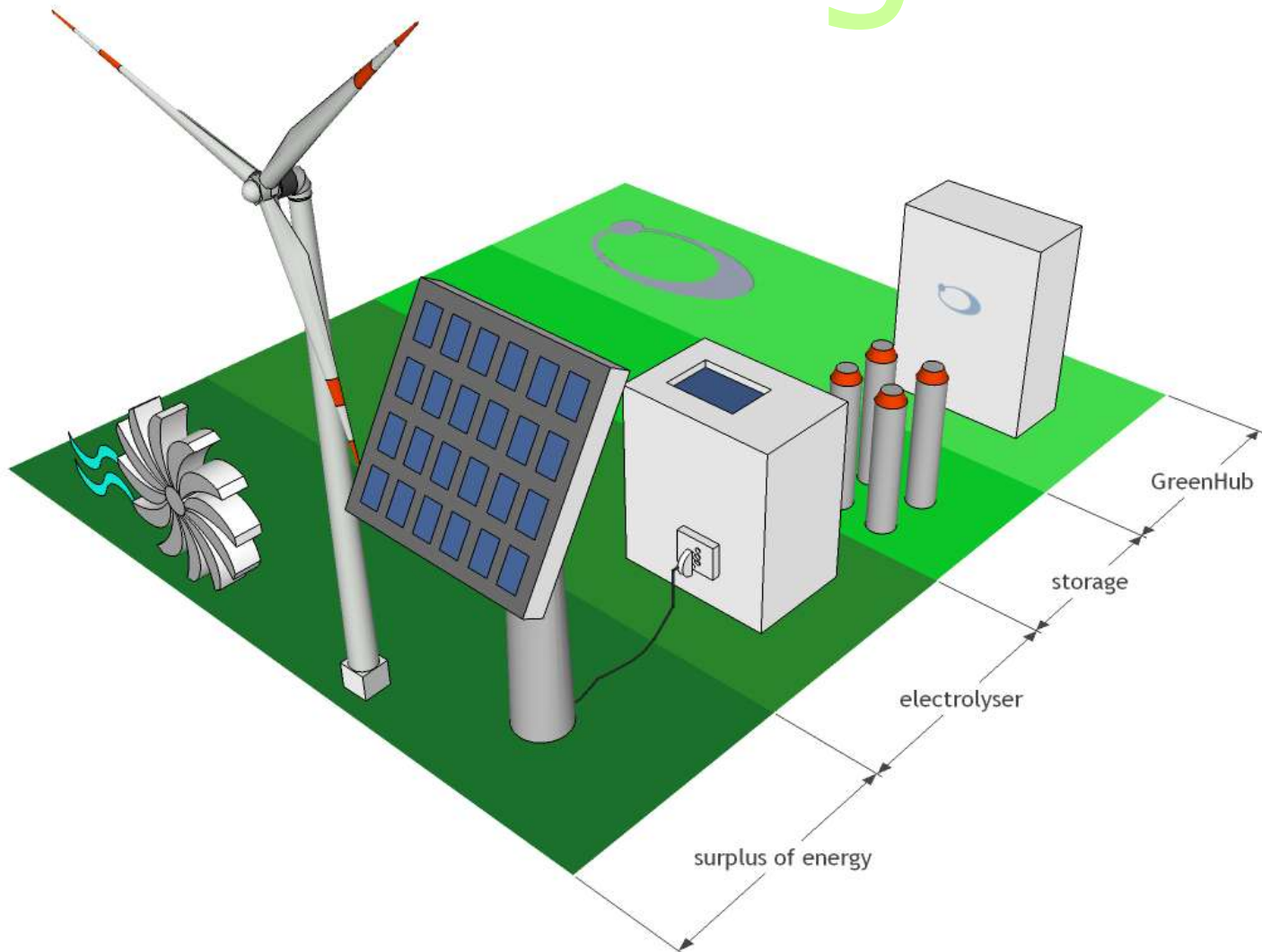


ELECTROLYZER

According to the electric absorption of the electrolyzer should be designed the renewable energy source power system (PV, wind or hydro ect.)

Dimensioning

Economic



H2planet can provide detailed simulations for all components of the complete hydrogen loop, from renewable energy source to the fuel cell systems, thanks to the innovative products lines for hydrogen production/storage/use.

Media coverage

2005

Magazine: H2 Idrogeno e celle a combustibile

2006

Magazine: Clima – September 2006

2007

Magazine: Focus July 2007

Insert Sole24Ore Nova24 July 2007

Magazine: B&GBusiness & Gentlmen July/September

2008

Magazine: FV-Fotovoltaici September/October 2008

2009

Magazine: FV-Fotovoltaici September/October 2009



CORRIERE DELLA SERA.it



nova



Liquida
NOTIZIE DAI BLOG



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