



# HIGHT PURITY HYDROGEN GENERATORS

 TECHNOLOGY BY ERREDUE

DON'T  
BUY GAS  
**GENERATE  
IT!**

# OUR COMPANY

ErreDue Gas develops technologies to help companies improve their production, their safety and quality of work

ErreDue designs, manufactures and markets highly innovative and high-performance solutions for the on-site production, mixing and purification of gases for various industrial and laboratory, medical and large plants

**+37**

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OVER THAN  
37 YEARS  
OF EXPERIENCE

**+50**

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EQUIPMENTS AND  
MACHINES INSTALLED  
IN 50 COUNTRIES

**+22**

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22 MEMBERS ALL  
EMPLOYESS MICRO  
PUBLIC COMPANY

**+2000**

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MORE THAN  
2000 MACHINES  
INSTALLED

# OUR STACKS

A large size and model selection completely produced in our own factory

ERREDUEGAS | OUR STACKS



140 | PEM  
TECHNOLOGY



38 | ALKALINE  
TECHNOLOGY



50 | ALKALINE  
TECHNOLOGY



320 | ALKALINE  
TECHNOLOGY



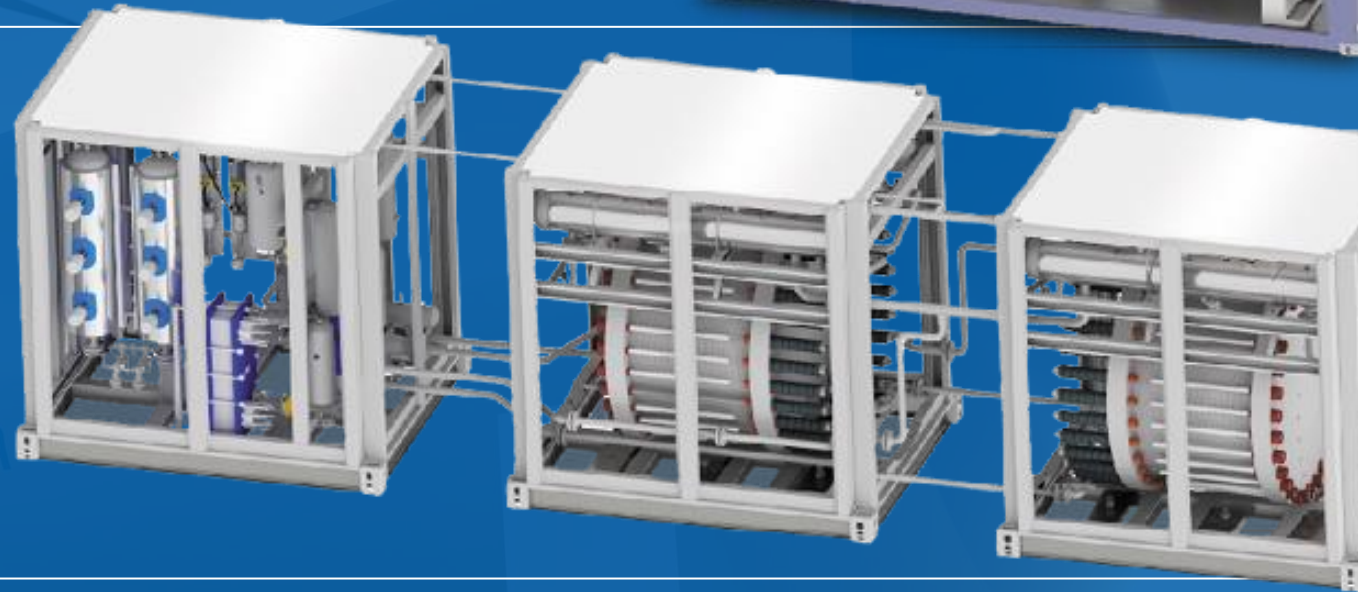
360 | ALKALINE  
TECHNOLOGY



0,5 MW | ALKALINE  
TECHNOLOGY

# HYDROGEN GENERATORS

A perfect solution for  
any industrial requirement



## SIRIO

Pem Tecnology  
Production of hydrogen up to 20 m3/h

## MERCURY

Alkaline Technology  
Production of hydrogen up to 170 m3/h

## H-MW

Alkaline Technology  
Production of hydrogen up to 210m3/h

# SIRIO

## HYDROGEN GENERATOR NEW PEM TECHNOLOGY BY ERREDUE

- Absolute gas purity
- Simplicity of use
- Reduced power consumption
- No maintenance
- Plug&Play System
- Compact system
- No external units



# MERCURY

## HYDROGEN GENERATOR

- Production of hydrogen up to 170 m<sup>3</sup> /h
- Working pressures of hydrogen and oxygen up to 30 bar
- Purity of hydrogen and oxygen up to 99.9999%
- Reduced electrolyte consumption
- Continuous gas production from 0 to 100% (24/7)
- Remote monitoring & technical assistance: the advanced
- PLC can be equipped with remote monitoring software that allows diagnostic and remote repairs
- Availability of purification and drying additional systems for every need and every purity level requested for both gases.



# H-MW

## THE POWERFUL SCALABLE SOLUTION TO GET VERY LARGE HYDROGEN FLOW

To meet the needs of the market **POWER TO GAS** ErreDue now offering a new plant the **H-MW** – one megawatt power.

H-MW is composed by two stacks of 500 Kw is a modular system controlled by one device that becomes the master and all the modules are slaves.



# DPH- PURIFIER

DPH is a device for removing residual **MOISTURE** and **OXYGEN** from a hydrogen stream.

DPH functioning consists in three stages:

**Purification:** through an activated carbon bed

**Oxygen removal:** through a catalytic combustion

**Drying:** through an activated alumina PSA system

Maintenance is minimum since there are no consumables, except for the inlet activated carbon bed, which must be replaced every two years.

Catalyst regeneration is carried out with a Nitrogen or Hydrogen flow.



# APPLICATIONS

- Vehicles Refuelling
- Power To Gas + Heat Recovery
- Hydrogen Refuelling Station
- REFUELLING... And Others

# VEHICLES REFUELLING

HOLTHAUSEN- NEDERLAND

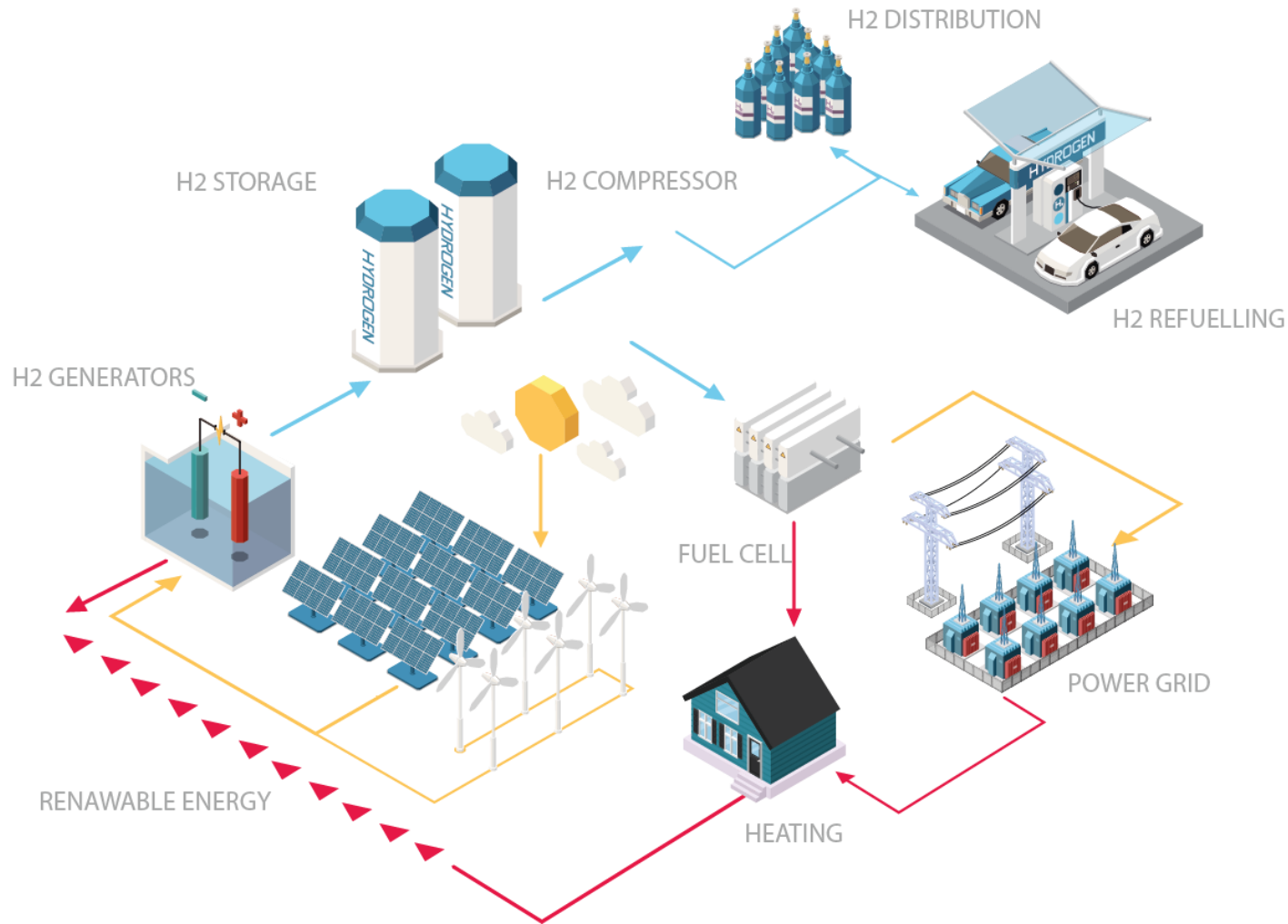


H2 produced: 42,62 Nmc/h  
H2 pressure: 30,0 bar (g)

H2 accumulation: **Cylinders @ 700 bar (g)**  
Application: **H2 Tracks and car refueling**



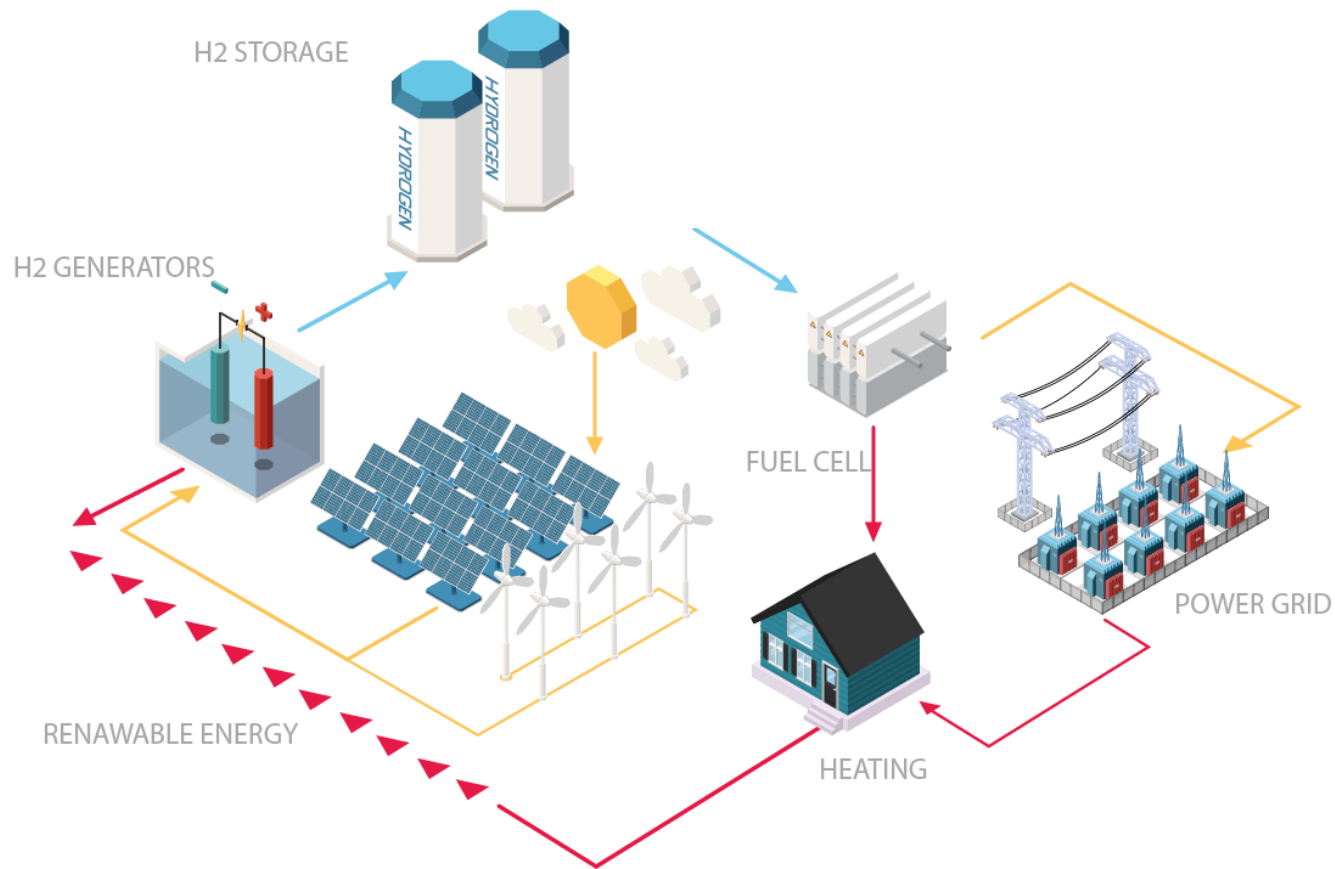
# POWER TO GAS + HEAT RECOVERY



## PLANT SPECIFICATION

Hydrogen production type:	Alcaline water electrolysis
Production capacity:	84 Nm <sup>3</sup> /hour (max)
Hydrogen storage capacity:	8000 Nm <sup>3</sup> up to 350 bar
Energy storage capacity:	12 hours power production
Fuel cell power effect:	20kW
Grid supply:	400VAC 3 phase
Compressor capacity:	100 Nm <sup>3</sup> /hour
Compressor pressure:	240 bar (up to 450 bar)
Heating purpose	Electrolysis
Control and surveillance:	Remote control

# METHANIZATION



84Nm<sup>3</sup>/h of H<sub>2</sub> @12 bar(g) for the Production of synthetic biomethane

Hydrogen production type: Alcaline water electrolysis

Production capacity: 85 Nm<sup>3</sup>/hour (max)

Hydrogen pressure: 12 bar

Grid supply: 400VAC 3 phase

Control and surveillance: Remote control

# OUR FUTURE

The desire to establish the first  
Gigafactory in Tuscany came from the  
new needs of the market demands

## UP TO THE GIGAFACTORY FROM **7000** TO **25000**

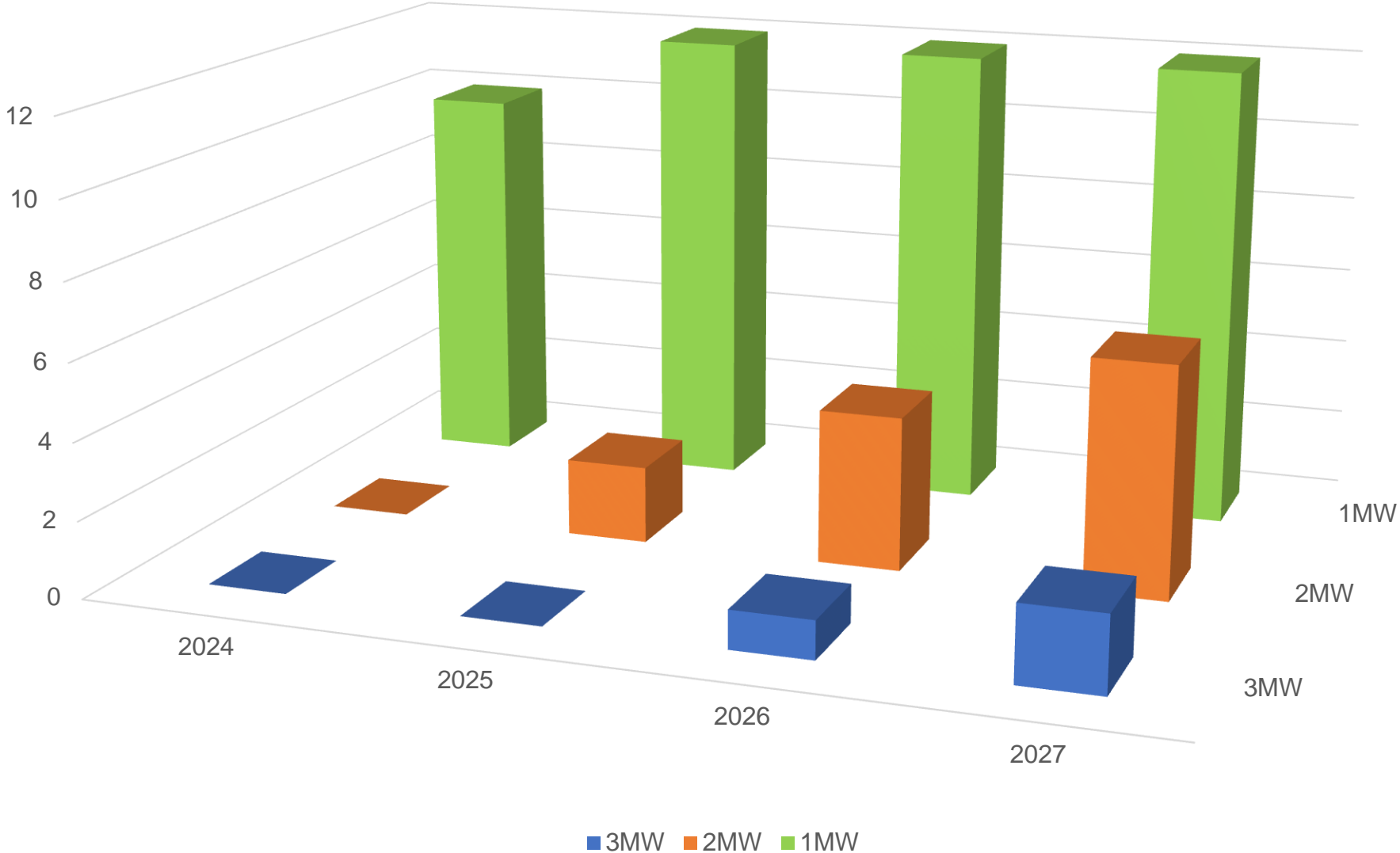
The new Gigafactory will be able to produce plants of **1 MW and above** reaching a production capacity of 20 plants per year

ErreDue is a micro-public company where about 20 percent of the workers are also partners. The drive toward expansion is strong and shared, the very nature of the company creates the conditions for having a common goal.

## TO GROW



# BUSINESS PLAN – HMW 2022- 2027







Erre**Due**

GENERATORI DI GAS ON-SITE

[www.erreduegas.it](http://www.erreduegas.it)