

## DESCRIPTION

A cogeneration hydrogen fuel cell is a system that allows the use of heat and electricity for different applications.

The fuel cell delivers up to 4kW of electrical and 3.5kW of thermal power. Heat is stored on a 150L water tank up to 60 C. It takes 2 hours to fully heat a tank from 20 C. Overall system performance is 70% (50% electrical and 30% thermal) and hot water is used for low temperature heating systems in industrial or household environments.

Using hydrogen, the fuel cell produces zero CO<sub>2</sub> emissions .

## FEATURES

<b>Performance</b>	H <sub>2</sub> cogeneration fuel cell: 80% (50% electrical and 30% thermal)
	Natural gas cogeneration fuel cell: 90% (30% electrical and 60% thermal)
	Cogeneration engine: total 90% (27,5% electrical and 62,5% thermal)
<b>Economics</b>	FCH <sub>2</sub> : 26 000 €
	FC Natural Gas: 35 000 €
	Cogeneration engine: 18 000 €
<b>Local Emissions</b>	FCH <sub>2</sub> : 0,0 kg <sub>CO<sub>2</sub></sub> /kWh (electrical)
	FCGN: 0,2 kg <sub>CO<sub>2</sub></sub> /kWh (electrical)
	MCI: 0,2 kg <sub>CO<sub>2</sub></sub> /kWh (electrical)



## FUNDED BY



[www.zerohytechpark.eu](http://www.zerohytechpark.eu)

## CONTACT:

Aragon Hydrogen Foundation  
[www.hidrogenoaragon.org](http://www.hidrogenoaragon.org)

Telephone: +34 974 215 258  
[fundacion@hidrogenoaragon.org](mailto:fundacion@hidrogenoaragon.org)

