



Better Life. Better Energy.

PowerBox™:
Endless Renewable Energy.
Unlimited Future

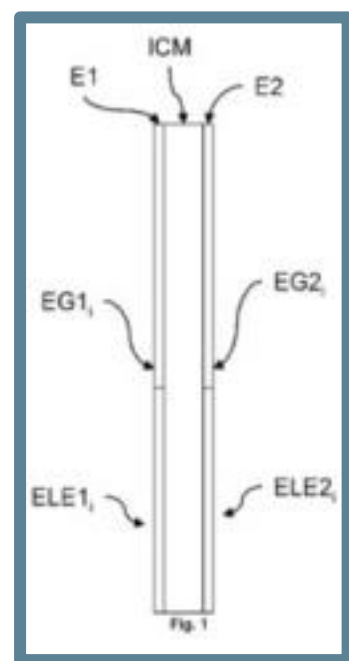


About Solenco Power NV

Solenco Power NV provides hydrogen-based storage solutions and hydrogen-based heat and power generation.

We are converting all types of buildings (residential & commercial) towards grid independence with a fully green solution for heating and electricity

- Days and Months energy storage
- 87 % overall efficiency



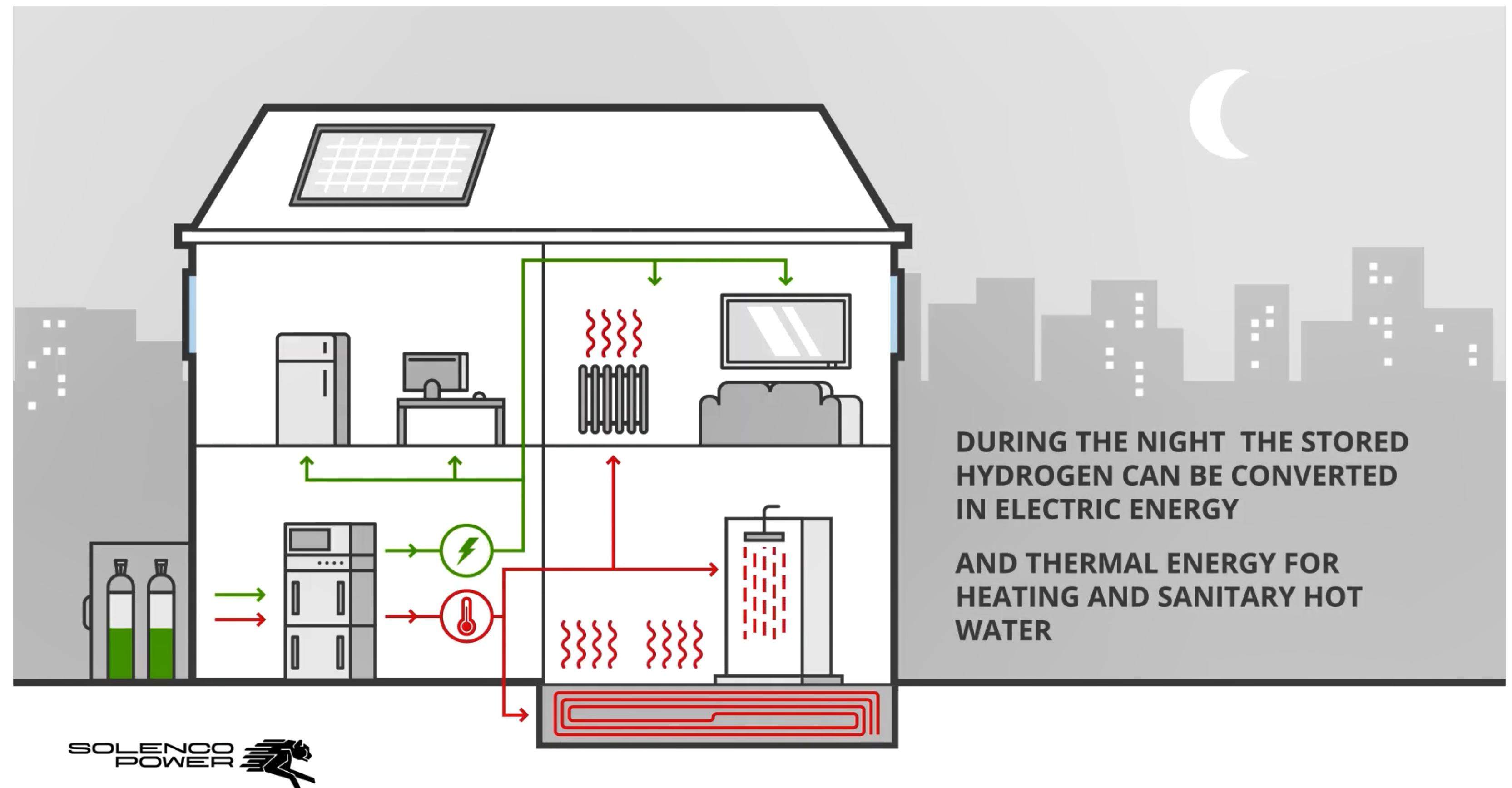
IP portfolio:
47 patents granted, 9
pending



HOW THE SPB WORKS

The full chain of renewable protected by 24 patents

- Solar panels & and/or small vertical-axis wind turbines as the sole source of energy.
- Energy surplus is stored as **hydrogen** and used when there is no sunshine for electricity and heat at **87% efficiency**.
- The SPB can work both on-grid and off-grid, **no strict need for a grid either for a natural gas network connection**.
- The product is therefore **triple-zero-carbon** since neither the hydrogen Production, Distribution, nor Usage introduces greenhouse gases.



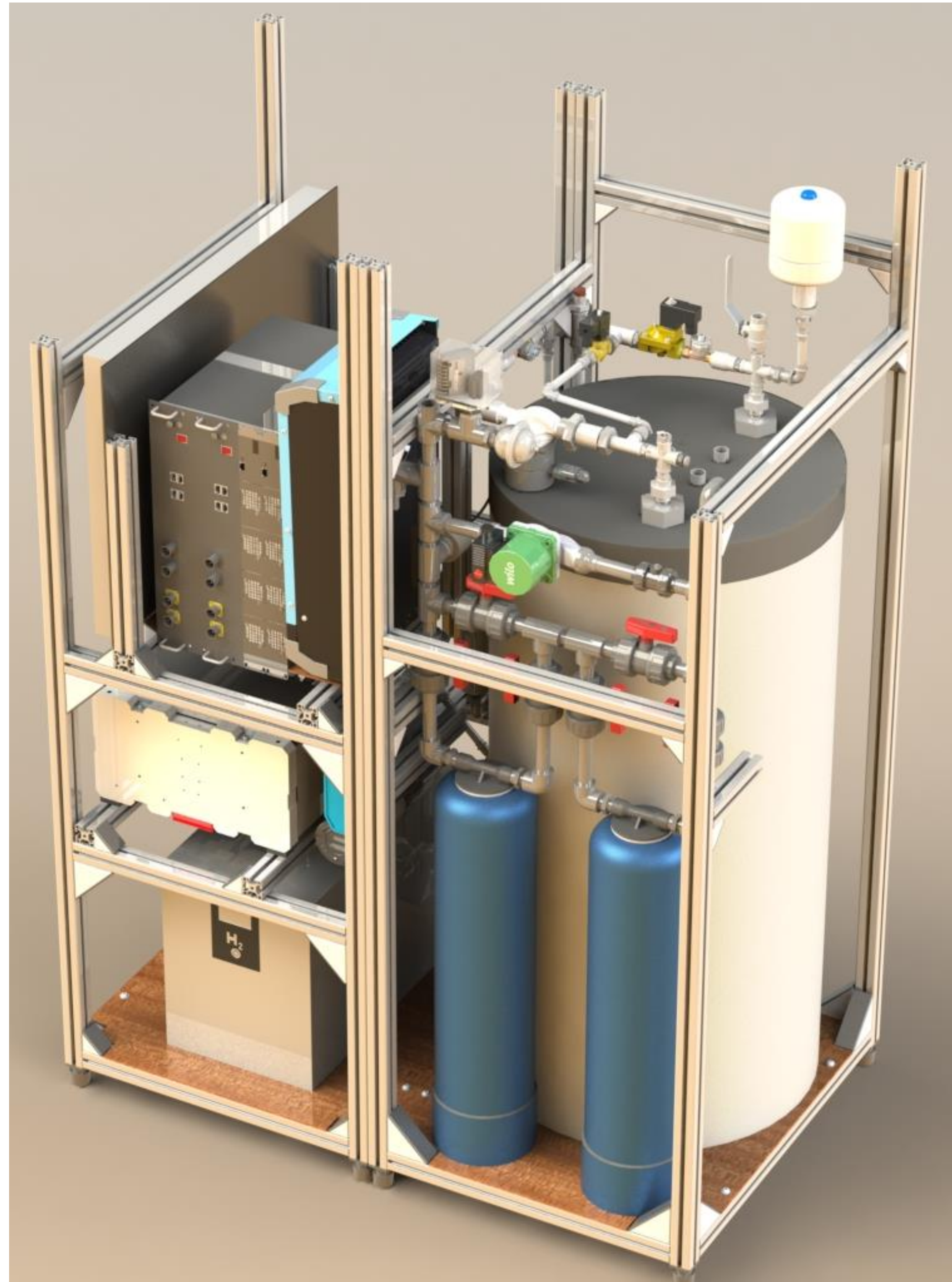
Office building IZEN Realization

- 250kWp solar PV
- 15kW electrolysis
- 5kW fuel cell
- 1MWh storage



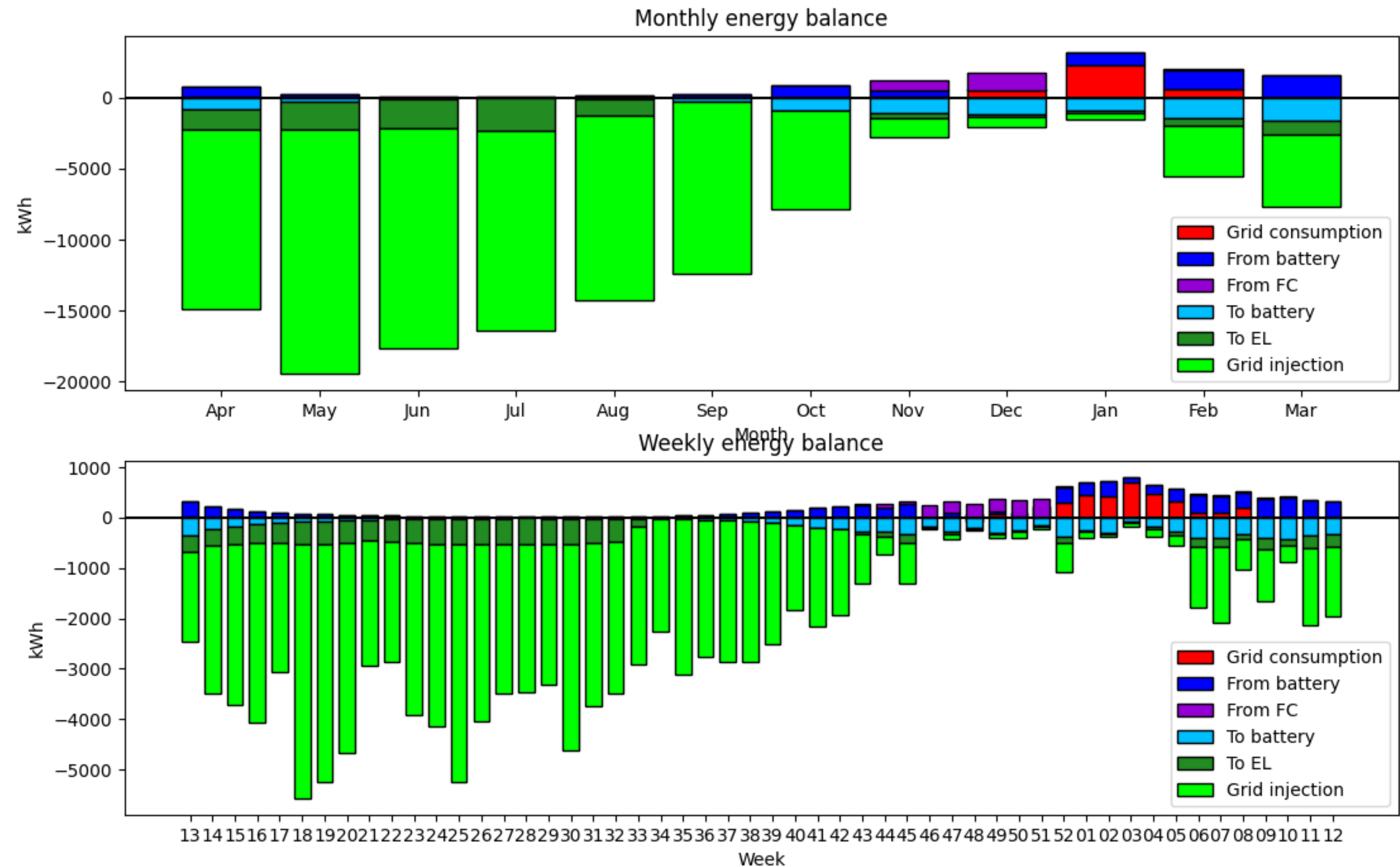
Technical solution

- Water treatment system
- 15kW electrolysis
- 5kW fuel cell
- 200l water buffer
- Optional catalytic boiler or combination with heatpump



Office building IZEN Results

Solenco
PowerBox™
(SPB). The
missing link for
mass uptake of
renewables.



Results:

Grid independance from May till November

Self sufficiency 38,8% -> 85%

Certification of the Solenco PowerBox™ (SPB) and the storage.

**SOLENCO
POWER** 

Solenco Powerbox
Gas appliance regulation (GAR) - 2016/426/EU
Solenco's hydrogen storage
Directive
Electromagnetic compatibility (EMC) - 2014/30/EU
Low voltage directive (LVD) - 2014/35/EU
Pressure equipment directive (PED) - 2014/68/EU
Standard
Safety Systems for unfired pressure equipment – EN764-7
Safety devices for protection against excessive pressure – EN ISO4126-1:2004



Partner for progress

Number V 20.002

Issue date 15 January 2006

Scope 2006/42/EC

Kiwa Technology hereby declares that the Power Generator with Reversible Fuel Cell, Boiler and Storage tanks:

Type name **Solenco Powerbox™ (SPB™)**

Manufacturer **Solenco Power N.V.**
Turnhout Belgium

Has been subject of a field location approval, and was evaluated to the essential requirements of the Machinery Directive

And fulfils the requirements as mentioned in the assessment report VGI/1282/Hz.

The test report can act as a base to show presumption of conformity with the relevant essential requirements of the Machinery Directive (2006/42/EC and amendment 2009/127/EC).

This declaration is only valid in combination with the appendix to this certificate, where specific information and/or conditions are given.



Ing. J.A.M. Peters
Unit Manager Gas Measurement & Safety
Kiwa Technology

Client

Solenco Power N.V.
Slachthuisstraat 112
2300 Turnhout Belgium



Kiwa Technology B.V.
Wilmsdorsf 50
Postbus 137
7300 AC APELDOORN
Tel. 088 9983321
Fax 088 9983323
E-mail technology@kiwa.nl
www.kiwatechnology.com

Declaration



Certificate Number
R21154RS-02
Date: 18-06-2021

Certificate of conformity

based on unit verification
According Pressure Equipment Directive 2014/68/EU, Module G

Kiwa herewith certifies that the pressure equipment assembly unit stated herein meet the requirements of the Pressure Equipment Directive 2014/68/EU.

<p>Manufacturer</p> <p>Name Address Place Country</p> <p>Assembly</p> <p>Description</p> <p>Type Serial number Category Declaration of conformity Documents</p> <p>Design Data</p> <p>Pressure Temperature Volume / DN piping Fluid</p> <p>Safety device(s)</p> <p>Verification</p> <p>Report</p> <p>Report number Date of Issue</p> <p>Remarks</p>	<p>Solenco Power NV Slachthuisstraat 112, bus 2 2300 Turnhout Belgium</p> <p>Solenco Hydrogen Storage Content Assembly see DOC Solenco SST-0401 1596319882004 IV module G SST-0401, 1596319882004 dd 14-06-2021 Manual: Hydrogen Storage Module dd 31-05-2021 PED FMEA 300 barg dd 15-04-2021 Safety valves calculations dd 14-04-2021 Identificatie van drukapparatuur en veiligheidsappendages dd 15-4-2021</p> <p>Max./Min. allowable Pressure PS; +300 bar(g) Max./Min. allowable Temperature TS; 110°C (Fire scenario) 800 liter (high pressure bundle) Group I, Category IV</p> <p>HY-PSV-002 / 300 PRD High pressure safety HHY-TV-001 / 300 TPRD Thermal safety, only fire scenario HHY-PSV-001 /40 PRD Low Pressure safety</p> <p>R21154RS-02 18-06-2021</p> <p>-</p>
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The pressure equipment shall carry the mark as indicated below:

CE

2715

Signature _____

Name: M.W.P. Kielemans _____



Kiwa Inspectie Nederland B.V.
Sir: W. Churchill-laan 273
Postbus 70
2280 AB RIJSWIJK Netherlands
+31(0)88 99 8 4400

nl.ned@kiwa.com
Chamber of commerce Regio
Haaglanden 67508073

Other PROJECTS

Solenco
PowerBox™
(SPB). The
missing link for
mass uptake of
renewables.



MULTI FAMILY HOUSING MICROGRID

Solenco
PowerBox™
(SPB). The
missing link for
mass uptake of
renewables.





Energy Independence is no longer a future fantasy, but can be provided by the SPB today:

- Mass uptake PV & energy storage
- Renewable energy all year – even in winter
- Fast growing market
- Easy to scale up
- Experienced & committed team
- Strong IP portfolio