

October 2021

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### **Title**

Solar Energy, 24 hours, even in winter. On or off-grid. Based on Hydrogen Technology

#### Duration

April 2020 - December 2022

### Main objectives

Manufacturing and Commercialisation of Solenco Powerbox

## **Dear Reader**

We are pleased to present you the ninth Solenco Power Newsletter from October 2021.

With the project's Newsletter you receive the latest information about the European Project SOLENCO and its main objective "The Solenco Powerbox", Manufacturing and Commercial roll-out.

Further, we will keep you up to date about the Project Activities and initiatives related to Solenco.

In the ninth issue of Solenco Power's Newsletter, we will explore one of the Solenco Powebox installations.

For more information and news about Solenco, please visit our website:

### https://www.solencopower.com/

We hope you will enjoy reading this ninth issue.

Your feedback and comments are always welcome!

# Message from the President



During this August – September 2021 period, we share more details about one of our installations.

This installation is located in the headquarters of IZEN, our commercial partner for installations where PV solar and Powerbox are requested.



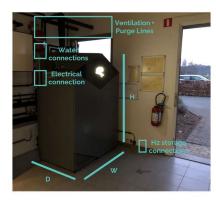
"A world based on a green and blue energy system, renewable energy and water, may not only be the dream of my grandchildren. It will be my gift for their future an d that of everyone"

Dr. Hugo Vandenborre Founder & CEO

## Solenco Powerbox installation

Solenco Powerbox installation consists of the Powerbox system (power) and the hydrogen storage (energy). Both are connected by the hydrogen tubing and cable signals.

### **Powerbox**



Overall dimensions\*: (W) Width: 1300 mm (D) Depth: 840 mm (H) Height: 1800 mm

**Spare Space:**Perimeter of 500 mm around the unit

H2 storage connections 2 x ¾" Stainless Steel Hydrogen Tubing Cable duct

**Ventilation + Purge Lines:** 2 x 80mm

Water connections: Tap water: ½" Hot water: 2 x ¾"

Electrical connection: 230V AC - 50 A monophasic

Dimensions to be

The Powerbox includes the reversible fuel cell, power electronics and AC/DC/AC rectification and inversion, as well as DC/DC conversion. The water treatment system, hot water tank and cooling loop are also integrated in the system. Lastly, the safety system and the smart energy software control system.

### **H2 Storage**



Overall dimensions\*: (W) Width: 4000 mm (D) Depth: 3000 mm (H) Height: 2200 mm

Distance from the nearest building:

Important information:

H2 storage and exhaust points (ventilation + purge lines) respectively require a distance defined by a sphere of at least 3000 mm from the nearest ignition point

> \*Dimensions to be used as a guidance

On the hydrogen storage side, the hydrogen tubing interface connects the Powerbox with the hydrogen bundles. This coupling is done by the hydrogen manifold where pressure handling equipment is integrated.

# **Upcoming Initiatives**

In the next newsletter we will share details about our certification approach for the Solenco Powerbox.

