

GREEN HYDROGEN USES-NAMIBIAN CONTEXT:

CLEAN COOKING with HyCOOKER

"OUR SUSTAINABLE PROMISE"



Kaoko
GREEN ENERGY
SOLUTIONS (PTY) LTD

HyCooker Prototype Unveiling Cape Town , 2023



Kaoko Green Energy Solutions (Pty) LTD

Kaoko Green Energy Solutions (Pty) Ltd is a Namibian energy-assets development company that is dedicated to providing sustainable energy generation solutions.

We specialize in developing energy assets using the power of world class **WAVE, Solar and Wind**. We **provide clean cooking solutions with** resources from Namibia. We use **green hydrogen as a feedstock for E-methanol and Algae for Bio-LNG, and CNG**. Our focus is on delivering clean energy and carbon free fuels that are environmentally friendly. Join us on our journey towards a sustainable future.

Sustainable Development Goal 7: Clean Cooking Agenda



Source: -Kaoko Green Energy Pictures, 2023

- Increase of people without access to clean cooking in Sub-Saharan was 923 million in 2020
 - Expected to rise to 1.1 billion in 20230
- Sub-Saharan is the only region with number of people without access to cleaning cooking is increasing
- Only 1 in five people in Sub-Saharan has access .
- Green Hydrogen represents a big opportunity to change that.

Source: *Tracking SDG7, The Energy Progress Report 2022*

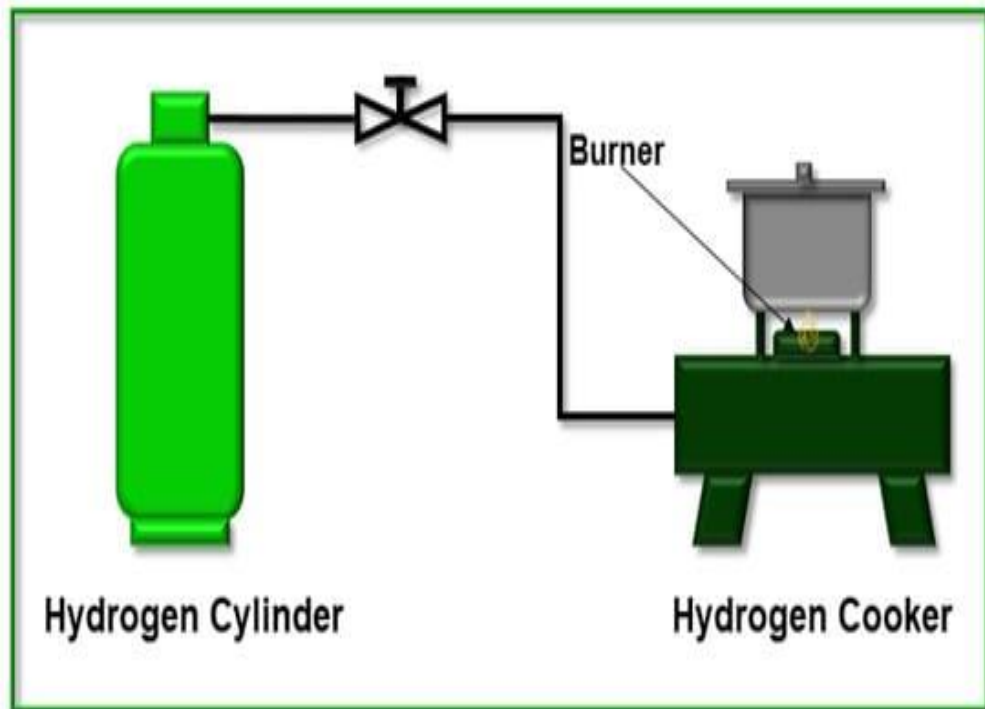


GREEN HYDROGEN AS A COOKING GAS

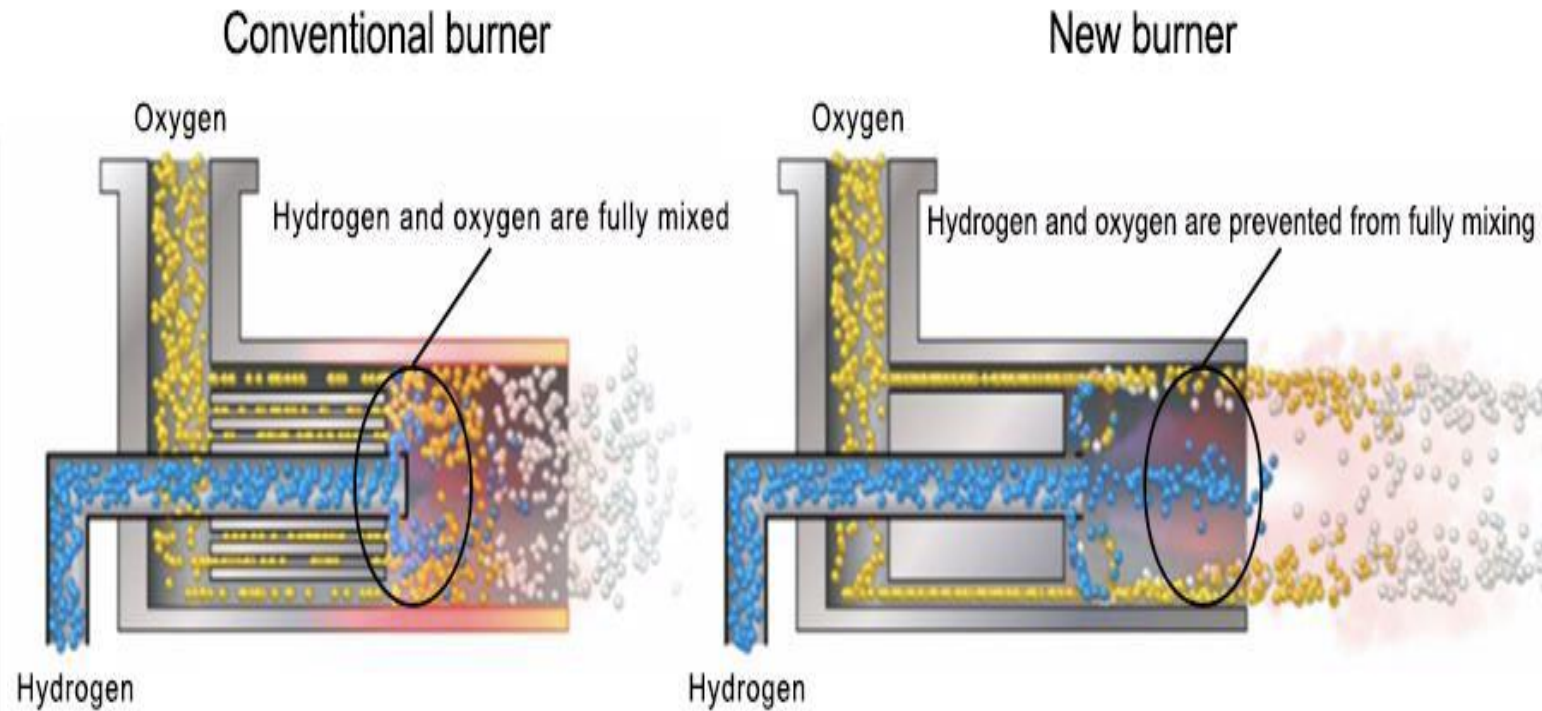
Green hydrogen from electrolysis is stored in cylinders and used straight in cooking. Same method as in LPG gas cooking. The only change in the stove and the gas.

The HyCooker is a **Direct Combustion Cooker**. In a direct hydrogen combustion cooker, hydrogen and oxygen from the air combine through flame combustion and produce water vapour.

The flame combustion temperatures range from 1200 °C to 2100 °C



1. Schematic drawing of a hydrogen cooker



2. How is HyCooker working

HYCOOKER-MAKING GH2 COMMON

- Capacity 2.5kW
- Gas flow 30mbar
- Thermal safety valve
- Cast iron frame and burner
- One gas-house for suitable for hydrogen low pressure (50mbar)





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For more information please contact:



+264 85 222 5600



kaoko@grncons.com



www.kges.com