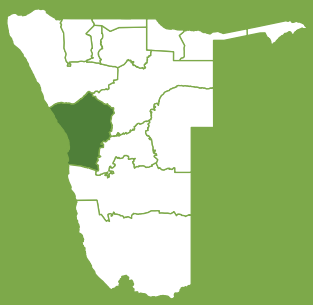
Project 4

Project Name	H2-Pilot Plant / Refueling Station in Walvis Bay
Location	Walvis Bay
Project Size	5MW Electrolyser
Project Value	25 million EURO
Project Partners	CMB.TECH, Ohlthaver & List Group (JV = Cleanergy Solutions Namibia)



CLEANERGY SOLUTIONS NAMIBIA

Project Overview

At the end of 2019, CMB.TECH started a project, called PV2Fuel, with the objective of producing ammonia at Gigawatt-scale. Feasibility studies were conducted which identified Namibia as one of the top 3 countries in the world with the best solar energy potential. The idea was to convert that energy into hydrogen and ammonia and create opportunities for the export of these products, the usage as a clean fuel and the conversion into green chemicals.

After performing an extended feasibility study in 2020, CMB.TECH partnered with Ohlthaver & List to continue the project. A Joint Venture "Cleanergy Namibia"has been founded to develop the project.

Cleanergy Namibia secured a land agreement for an area of 116 ha at the Port of Walvis Bay, to develop an ammonia factory including the required exporting facilities. The harbor site will be connected to a Gigawatt-scale solar park in Arandis, where the solar irradiation is one of the best worldwide. The project will start with a pilot project.

The plant will be situated near the airport of Walvis Bay and will consist of a 5 MW photovoltaic solar system, a 5 MW electrolyser and a H2-refuelling station. The purpose of the plant is to test technologies, to develop offtake applications within the transport sector, mining sector and port activities and to facilitate technology transfer and skills development into Namibia. As such, the pilot plant will be used to establish a proof of concept to the Namibian people and the world at large, that a Green Hydrogen economy can be built for future prosperity of Namibia.

Building upon the lessons learned with the pilot plant, a second phase with a bigger commercial plant including ammonia production is planned.

Current Stage

- Concept and designs being finalised
- EIA commenced
- Land identified (near Walvis Bay)

Development Timeline (split per quarter)

- **Concept:** Complete
- **Approvals:** Final investment decision May 2022
- **Groundbreaking:** 4th quarter 2022
- **Completion of pilot plant:** End 2023
- **Commercial plant:** 2026/7

Impact

Estimate no. Of jobs	25-50 (pilot plant); > 1000 commercial plant and related industry
Unique Value	• actual green hydrogen production • hydrogen fuel stations / mobile refueling technology • facilitation of upskilling/learning/research (cooperation with UNAM, BAM, NIMT and others) • development of offtake applications

Sustainable Development Goals (SDGs)

Contact Details

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Project Pictures

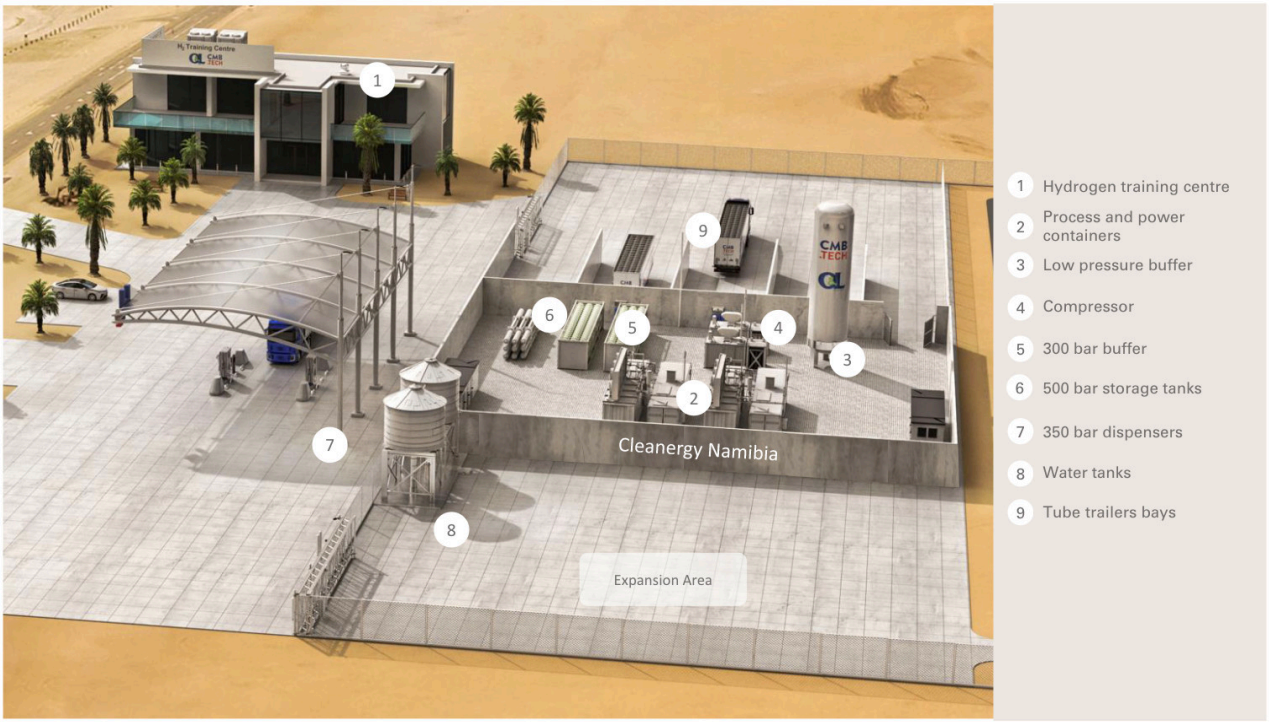

Figure 4: Hydrogen production zone