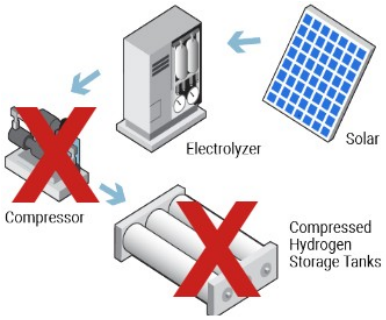
H E B Ē™

Innovator of long-duration energy storage underground green hydrogen solutions that are designed from reinforced mineral composites and specialty proprietary liners yielding significant improvements in sustainability, 5-8x lower costs as compared to conventional steel high-pressure cylinders, and unmatched hydrogen handling safety excellence within the industry.

WHAT PROBLEMS WE ARE SOLVING?

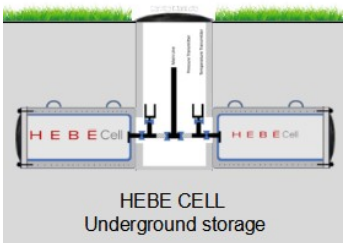


We are solving 4 main problems:
1- Significant *reduction in CAPEX & OPEX* required to safely store and cycle large quantities of zero-carbon hydrogen at electrolyser pressure with operating life greater than +30 years.
2- *Removing location dependency* of current grid scale hydrogen storage hubs. (i.e., salt caverns).
3- Providing *uninterrupted carbon-free energy for longer durations vs grid-scale lithium battery packs*
4- Improved site safety/ permitting, leveraging the earth's natural inert environment, structural, and thermal properties at minimal net effective cost.

Ultra low-cost designed and constructed subterranean hydrogen storage, in any geography and geology to accelerate adoption of zero-carbon hydrogen produced from renewables solar/wind + electrolysers with integrated electrochemical compression to drive our world towards greater sustainability and electrification reliability.

WHAT MAKES US DIFFERENT?

Our team uses "creative-disruptive engineering" to re-think the traditional steel cylinder hydrogen pressure vessel and its structural and dimensional limitations with unique mineral composites. Hydrogen is the ultimate energy carrier at 33 kWh/kg, the HEBE Cell at a minimum will have a total storage capacity of > 100 kg of fuel cell grade hydrogen which is the equivalent in energy content as the Tesla Megapack @ 2.0 MW (market value $1.60 million USD.



HEBE CELL
Underground storage

WHERE HEBE CELL CAN MAKE A DIFFERENCE?

- Enabler of independent micro-grids.
- Supplement to lithium storage systems with focus on longer duration energy storage.
- Carbon-free hydrogen storage provider for the general green hydrogen value chain.

WHAT's NEXT FOR HEBE in 2023 & 2024?

1. Building & testing prototypes to TRL-5 status by 4Q23.
2. Field-Installation HEBE Cell in 1Q2024 and optimization for 3Q2024 to achieve TRL-7.
3. Full Commercialization & certification of HEBE Cell by 4Q2024.

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