

# Energy News



## HIGHLIGHTS

### 2.1 UNIQUE

Technology to produce hydrogen energy with a self-sustaining efficiency that only nuclear fusion hopes to achieve in 50 years.

### 2.2 SCIENTIFIC

Combining very low stimulus electrical energy with spontaneous redox reactions within an electrolytic cell to produce huge amounts of hydrogen.

### 2.3 COST EFFICIENT

The slow consuming low cost, abundant, galvanic metal rods converts energy at a cost of just \$0.34/kg of hydrogen or \$10 per megawatt of energy.

### 2.4 SCALABLE

Fully scalable from small 2 cubic meter microgrid local power stations to large megawatt power plants in any location.

### 2.5 GAME-CHANGING

On-site hydrogen production eliminates costly and potentially dangerous storage, transportation, shipping and pipelines. Reliable, clean energy supply at any location.

## A New Way of Generating Energy

### The Next Generation In Energy

A New Zealand based R&D company, developed what many are labeling 'Holy Grail of Energy'.

The technology splits sea or rain water into pure hydrogen much more efficiently than conventional electrolyzers. The Coefficient of Performance (CoP) is so great that the technology enabled self-sustaining energy at a level that nuclear fusion hopes to achieve in 50 years. The electrochemical cell is so unique that scientists have categorized it as a revolutionary mix of voltaic and electrolytic cell science.

When power is applied, charged oxygen ion are released and bond with the anodic alkaline electrolyte. A spontaneous redox reaction occurs, resulting in a substantial internal charge buildup between the electrodes.

The charge is strong enough to split the electrolyte into large amounts of hydrogen. Before the oxygen ion oxidizes at the anode it forms a bond with the electrolyte to increase the cell potential rather than releasing and mixing with the output gas.

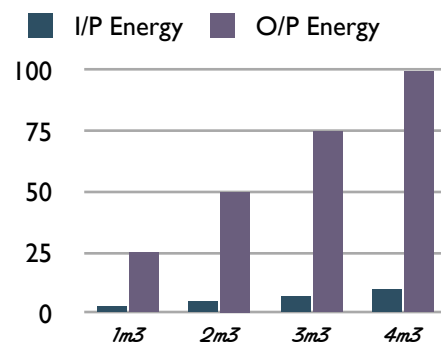
Galvanic metal is the main fuel supplying more than 95% of the internal charge. The quick change galvanic metal electrode are priced at just \$0.34c per Kg of hydrogen or \$10 per megawatt of energy and are exchanged every 30 to 60 days.

**“This is not just another method, but a whole new way of generating energy”**

The C.O.P is a fraction that of common, conventional PEM type electrolyzers.

The input power is so low that a small portion of the output hydrogen can be converted back to power the cell thus enabling self-sustaining energy generation. H2IL have proven this capability in published CCTV verification testing.

Performance over cell scale in cubic meters.



David Hendrick, a spokesman for H2IL, states “Like self-sustaining nuclear reactions, energy is not being created, but simply transferred from one form (metals) to another and supporting the laws of thermodynamics”.

The fully patented technology has 14 years of extensive development including verification testing. Now in its final stage, H2IL plans to have the technology ready for commercialization by mid 2021.

H2IL are taking expressions of interest in technology acquisition including patents and IP takeover. The focus is toward international corporation large enough to commercialize and integrate the technology into the many hydrogen and energy based application worldwide.