

“WATER TO HYDROGEN GAS SOLUTION”



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INEXPENSIVE MASS HYDROGEN PRODUCTION FROM WATER

Our technology, Water to Hydrogen Gas (W2H2) is based on an advanced proprietary scientific method which includes the invention of using Water Thermolysis to extract Hydrogen Gas from water in high volume for power generation at much lower cost than competing Technologies (i.e. Electrolysis).

REAL TIME HYDROGEN PRODUCTION AND NO HYDROGEN STORAGE NEEDED

Since Hydrogen (H₂) production is done in real time according to actual power production requirements there is no requirement for hydrogen storage, which is one of the greatest challenges in using hydrogen gas as a renewable fuel source, not to mention avoiding a storage model is also much safer.

APPROXIMATELY 50% TO 85% SAVINGS

On average with W2H2, power is generated at approximately 15% to 50% of the cost of fossil fuel and no fossil fuel component is required to mix with the H2 when using W2H2 technology. Water is the feedstock.

In addition to eliminating the need to purchase any fossil fuel, adopters of W2H2 also eliminate costs associated with fuel storage, shipping costs and/or gas pipeline infrastructure.

HIGH ENERGY OUTPUT AND LOW POWER CONSUMPTION

Each kg of H₂ production consumes less than 3kWh of input electricity energy but generates hydrogen production equivalent to 12.5kWh to 20kWh of electrical energy output.

20kg-80kg of H₂ is required to produce each MW of electrical energy output, it varies based on the efficiencies involved in the application such as genset, gas turbine or boiler or kiln heating.

NO CARBON POLLUTION

W2H2 is a no carbon emissions technology designed to shift existing and future industrial power production away from fossil fuels and therefore reduce the world's harmful emissions, currently approx. 25% of the world's harmful emissions is caused by Industrial Power Production, we seek to bring this number close to zero.

Currently approximately 5% of the world's hydrogen production is considered green. W2H2 is a green method of Hydrogen Production and not dependent in any way on fossil fuel.

CONVERTS ANY SIZE POWER PLANT



▪COAL



▪GAS/DIESEL



▪OIL



▪NATURAL GAS

FOSSIL FUEL POWER PLANT CONVERSIONS TO W2H2

Our solution is modular, scalable and customizable to accommodate any size of power generation requirement, up to and including gigawatt fossil fuel power plant conversions into Hydrogen Gas fired plants. When used for Industrial Power Plant Fossil Fuel Conversion to Hydrogen, the technology is deployed in Mini and Max modules, with an unlimited number of modules being possible.



INDUSTRIAL POWER PLANT CONVERSION

Large Power Plant Owners around the world are seeking the W2H2 technology solution to convert fossil fuel plants to hydrogen gas. After testing and perfecting the technology in smaller scale, major industrial power producers are set to begin conversion. We have several global power producers waiting for the technology and we expect global mass market adoption at an exponential growth rate.

OVER 20,000 FOSSIL FUEL PLANTS WORLDWIDE REPRESENT THE TARGET MARKET FOR W2H2 CONVERSION TO HYDROGEN GAS.

HUGE SAVINGS WITH W2H2

COST OF 600MW NATURAL GAS PLANT

At full Load operating 24/7/365 a 600MW Natural Gas Plant uses almost 100,000m³ of Natural Gas per hour,

Average cost per m³ estimated at:

\$0.30 X 100,000m³ Per Hour = \$30,000 USD in fuel costs per hour

Usage of Natural Gas Per Day = \$720,000 USD

Usage of Natural Gas Per Year = \$262.8M USD

**Usage of Natural Gas during 25 years= TOTAL SPENDING
\$6.57B USD**

**W2H2 SAVES APPROXIMATELY 50% OF THE ABOVE
NUMBERS!**

BILLION\$ SAVED OVER THE LIFETIME OF THE PLANT

HUGE SAVINGS WITH W2H2

COST OF 100MW NATURAL GAS PLANT

At full Load operating 24/7/365 a 100MW Natural Gas Plant uses approximately 17,000m³ of Natural Gas per hour,
Average cost per m³ estimated at:

$\$0.30 \times 17,000\text{m}^3 \text{ Per Hour} = \mathbf{\$5100 \text{ USD}}$ in fuel costs per hour

Usage of Natural Gas Per Day = $\mathbf{\$122,400 \text{ USD}}$

Usage of Natural Gas Per Year = $\mathbf{\$ 44.676\text{M USD}}$

Usage of Natural Gas during 25 years = **TOTAL SPENDING**

$\mathbf{\$1.117\text{B USD}}$

**W2H2 SAVES APPROXIMATELY 50% OF THE ABOVE
NUMBERS!**

**HUNDREDS OF MILLIONS SAVED OVER THE LIFETIME OF THE
PLANT**

SAVE AN ESTIMATED 85% WITH W2H2

COST OF 10MW DIESEL GENERATOR

At full Load operating 24/7/365 a 10MW Power Generator uses about 671 gallons of Diesel per hour,

cost per gallon about \$3.61 USD X 671/Gallon Per Hour = \$2422.31 USD

Usage of Diesel Per Day = \$58,135.44 USD

Usage of Diesel Per Year = \$21,219,435.60 USD

Usage of diesel during 20 years= TOTAL SPENDING \$424 MILLION USD

**W2H2 SAVES AN ESTIMATED 85% OFF OF THE ABOVE NUMBERS!
HUNDREDS OF MILLIONS SAVED**

TURNKEY MODULAR AND MOBILE POWER PLANTS POWERED BY W2H2

**SMALLER PLANTS ARE MOBILE AND DELIVERED IN 20' AND
40' SEA CONTAINERS**

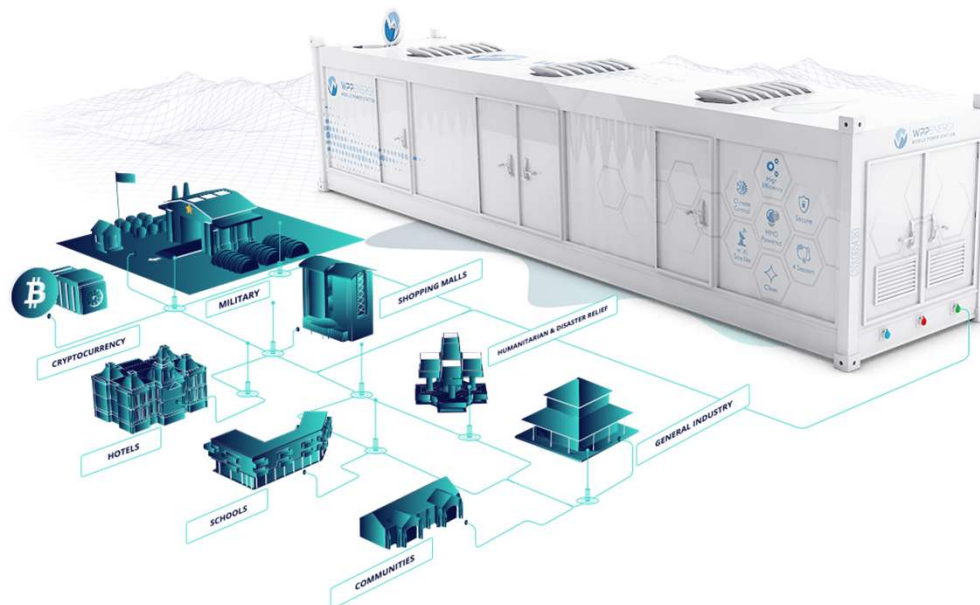
SCALABLE TO 100MW+

- **H2 POWER GENERATORS
0.5MW - 8MW POWER GENERATION**
- **MODULAR H2 POWER PLANTS
9MW - 25MW POWER GENERATION**

0.5MW - 4MW MODULES

9MW TO 25MW SCALABLE TO 100MW+

Our 0.5MW - 4MW mobile units are ideally suited for remote installations requiring long intervals between maintenance activities. They can be placed on the back of a truck or on the ground. Optional equipment such as sound attenuated and weather proof enclosures, power distribution panels and packaged heat recovery systems are also available.



MARKETS IN NEED OF MODULAR & MOBILE POWER

- **Government & Public Sectors** ▪ **Independent Power Producers**
- **Emergency Power** ▪ **Offshore Platforms** ▪ **Agricultural** ▪ **Food & Beverage**
- **Industrial Parks** ▪ **City Infrastructures** ▪ **Mining and Mineral Extraction**
- **Hospitals** ▪ **Universities** ▪ **Cement Factories** ▪ **Fertilizer Plants** ▪ **Oil & Gas**
- **Pulp and Paper** ▪ **Sugar** ▪ **Textiles** ▪ **Manufacturing** ▪ **Waste Treatment**
- **Landfills** ▪ **Military** ▪ **Cryptocurrency Miners** ▪ **Hotels** ▪ **Schools** ▪ **Communities**
- **Shopping Malls** ▪ **General Industry** ▪ **Humanitarian & Disaster Relief**

TOTAL “TURN-KEY” EPC SERVICES

ENGINEERING, PROCUREMENT & CONSTRUCTION

- **Design**
- **Procurement**
- **Installation**
- **Infrastructure**
- **Commissioning**
- **Training**

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