ADVANCED COMBUSTION TECHNOLOGIES, INC.
DEVELOPMENT SUMMARY AND INVESTMENT OPPORTUNITY
SPRING, 2024

Company History Summary

The Company was formed in June of 2008.

After 15 years of intensive research into fuel cell technologies, Advanced Combustion Technologies, Inc. recently achieved a major scientific breakthrough that challenges conventional theories on hydrogen extraction. Through iterative material science advancements and electrochemical optimization, ACT's engineering team developed novel protocols that leverage a revolutionary advancement in electrolysis techniques to split hydrogen from water molecules at a fraction of the energy input previously thought possible.

This document summarizes the progress of the company's current evolution of it's commercialization agenda, including scaled manufacturing goals and timeline
as well as an overview of the current contracts executed, as well as contract developments that are "in process".

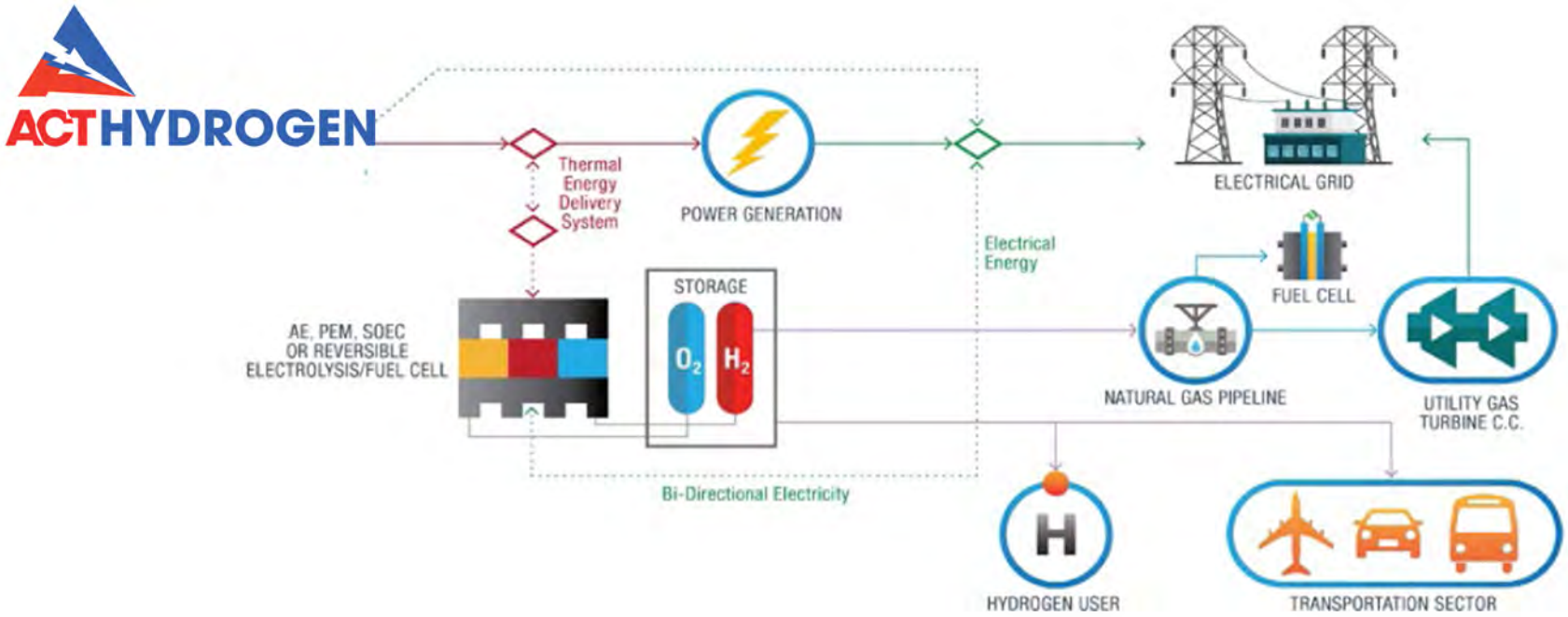
The current participation/investment opportunities with the company are also outlined.

What is unique about our Technology Model?

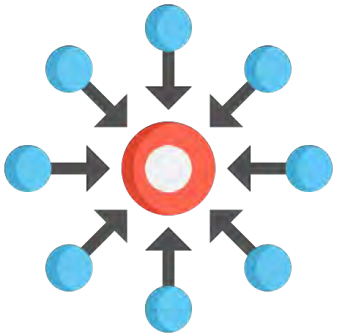
Specifically, ACT's proprietary hydrogen extraction process drastically lowers the free energy change required per mole of H2 gas liberated, surpassing conventional Gibbs free energy requirements by an order of magnitude. This disruption is made possible by capitalizing on electrolysis methods that allow more efficient electron transfer at nano-scale catalytic surfaces immersed in aqueous solution. In turn, less voltage and electricity is wasted driving the hydrogen evolution reaction.

By tackling one of the key inefficiencies in fuel cell systems, ACT is poised to provide quantum leap improvements in making clean hydrogen energy commercially viable. The company's scientific rigor and persistence in researching electrochemical systems at the molecular level has resulted in an innovation that breaks previous thermodynamic barriers. This advantage in hydrogen production efficiency could accelerate global adoption of fuel cells for transportation, power generation, and energy storage applications, because ACT's Technology will be easy for ANY Hydrogen Production Facility to produce Hydrogen Gas more rapidly and more inexpensively than any other Hydrogen Production Technology in the Industry today.

INDUSTRY POSITIONING



THE VALUE OF DE-CENTRALIZED GAS PRODUCTION VS CENTRALIZED PRODUCTION



THE CENTRALIZED MODEL

*Storage challenges

*Transport Challenges

Construction and Deployment Lead-times take years and are Massive and complicated.

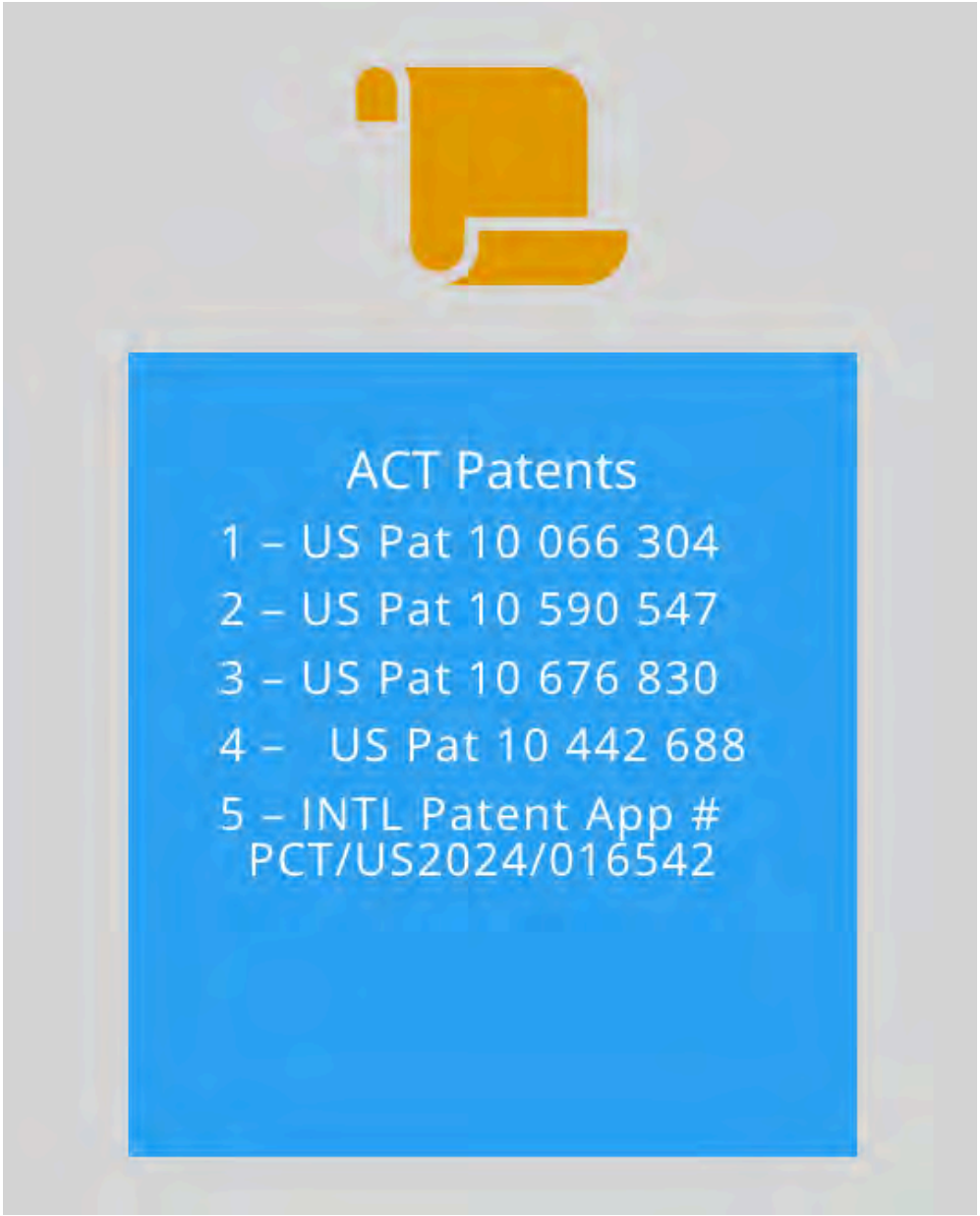
THE DE-CENTRALIZED (ACT) MODEL

*Minimal storage required.

*No need for transport

Construction and Deployment Lead-times are rapid and virtually "plug & play", dramatically shortening lead-times.

ACT is able to maximize profit for EVERY COMPANY across the Hydrogen Production Business Chain by Preventing the loss of Hydrogen (which is statistically up to as much as 17%) that is lost during transport and storage. Additionally, The Company's Hydrogen Production Technology is capable of enabling ALL Hydrogen Production Company's to generate Hydrogen gas at a cost and power consumption level that 50 times lower than any other process currently in development or operation on the planet today!



Independent 3rd Party Run-Test Report Summary carried out by
North American Energy Resources, Inc.

This independent 3rd Party Test was carried out in April of 2023 and published in May of 2023 and represents the most current of the many independent 3rd party tests That have been carried out by the Company over the many evolution of the technology to it's present dual, pulsed-plasma evolution in design. The Company is presently continuing to evolve the technology even further with the goal of increasing input and output efficiencies as well as application of the technology to include processes for innovation in other technology arenas beyond Gas and Power Production.

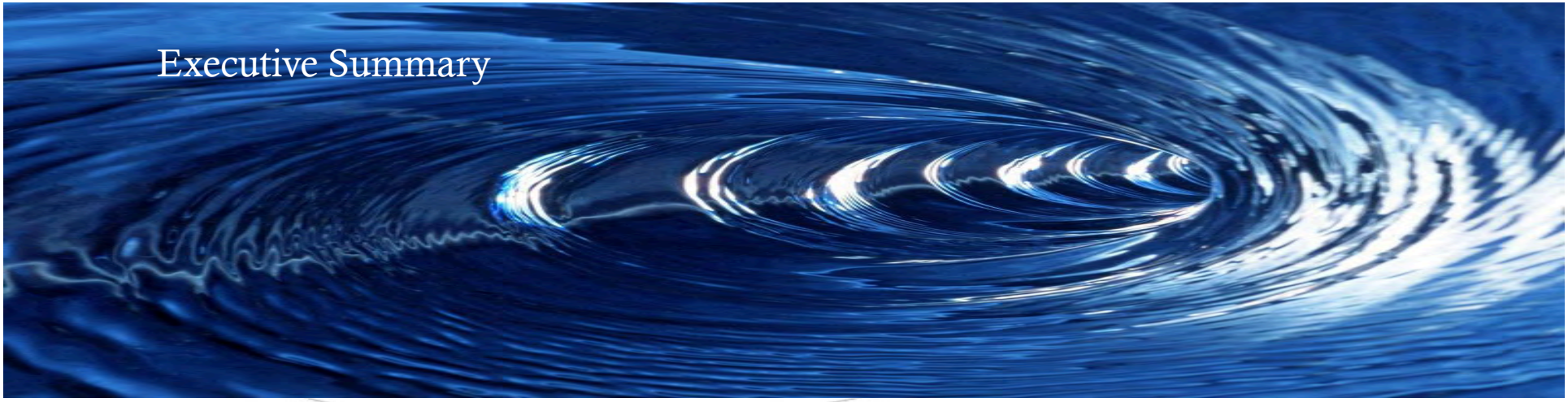
Spring 2023

ADVANCED COMBUSTION TECHNOLOGIES, INC.

Independent 3rd Party Fuel Cell Run Test April 2023

by

SNAER INC



Executive Summary

Advanced Combustion Technologies, Inc. is a U.S.-based company that has developed and secured multiple U.S. patents relating to a novel method for water electrolysis, to efficiently produce hydrogen gas from an electrolyte solution consisting of de-mineralized water and potassium hydroxide (KOH).
One of the unique elements of the company's Hydrogen Production Unit ("HPU") is the use of dual plasma arcs in the electrolyte. ACT states that the HPU can produce a kilogram of hydrogen gas utilizing less than three kilowatt hours (kWh) of electrical energy.

To evaluate this claim, NAER Inc. developed and conducted an independent testing project which is described in this report.

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www.naer-inc.com

After familiarizing itself with the technical elements of the HPU, its components and its operation, NAER developed a Test Procedure described herein to verify ACT's power efficiency claims and to evaluate the potential commercial viability of the ACT technology. The test procedure was conducted by ACT staff at the ACT research and fabrication facility located in San Juan Capistrano, CA. The process involved the following tasks:

- Task 1: Write the Test Procedure, followed by ACT review, discussion and approval.
- Task 2: Observe and record data during the Test Procedure at the ACT facility, specifically the power and electrolyte consumption of the HPU, collect samples of gas production, and monitor HPU operating conditions such as temperature and electrolyte pH throughout the Test Procedure.
- Task 3: Following the Test Procedure, verify sample gas components and concentrations via certified lab analysis, compile and analyze the HPU data.

DESCRIPTION OF THE HYDROGEN PRODUCTION UNIT (HPU)

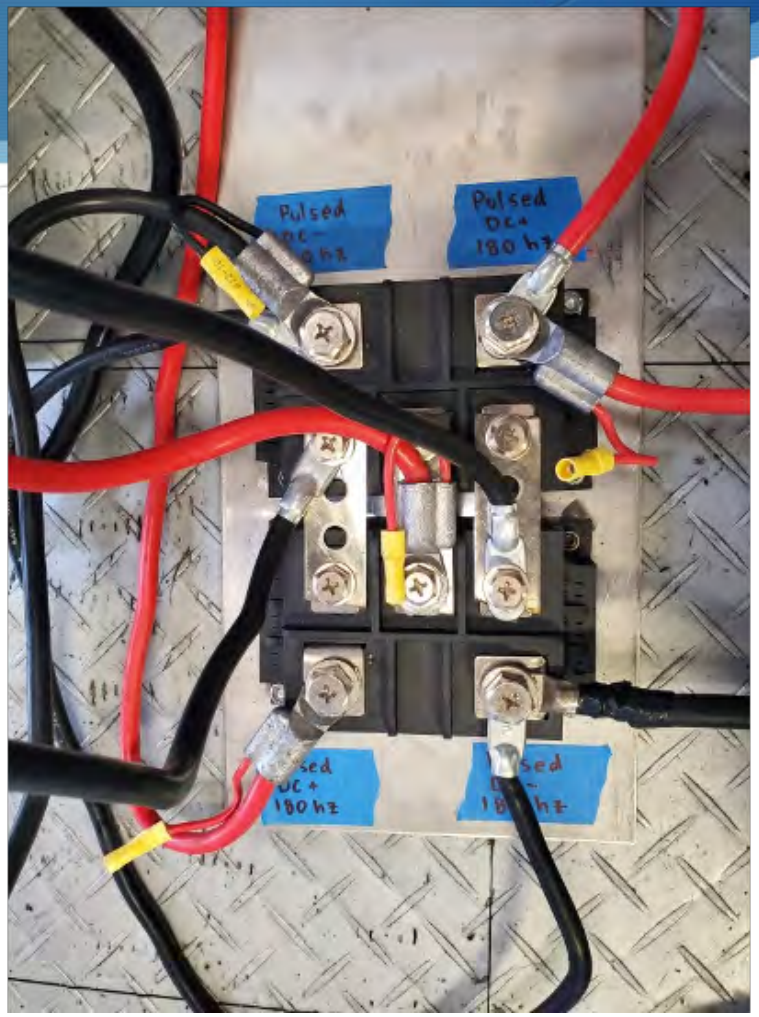
The HPU consists of a symmetrical pair of three electrolysis cell stacks arrange in series with a plasma torch positioned on the exterior end of the cell stacks and an "X-plate" positioned in the internal end as illustrated in Figure 1 below. Each cell stack consists of 4 nickel plates and 21 stainless steel plates and is exposed to a pulsed direct current ("PDC") of + & - 120 volts with a frequency of approximately 180 Hz. The individual plates are separated by nonconductive separators and submerged in the electrolyte solution of DI water and KOH. Separately, a 260 volt + & - PDC current, also pulsed at 180Hz, is across the plasma torch (as the Anode) to the X-plate (as the Cathode) which are also submerged in the electrolyte. The entire assembly is contained in a sealed reaction vessel that can hold up to 165 gallons of electrolyte fluid and operates at atmospheric pressure.

HPU Reaction Vessel with Cover

The HPU excludes certain components that would be considered "balance of plant" in an industrial application. These include the electrical control system, electrical power supply, hydrogen production buffer tank, cooling system, de-ionized water production, automatic fill and drain pumps, gas separation equipment, compressor/ storage tanks, system controls, and miscellaneous valves and instrumentation. This ancillary equipment necessary is now being developed and integrated into a fully operational system.

This "balance of plant' would bring additional power consumption to the HPU which must be considered when evaluating the performance relative to other hydrogen production technologies.

75kV AC/DC Transformer and Rectifier



Electrolyte Details and Specifications

Prior to commencing the electrolysis process, the reaction vessel is filled with DI-T2 water and potassium hydroxide (KOH) to achieve an electrolyte solution of up to .001-.071% mass/volume, Because the volume of electrolyte is kept constant and no KOH is consumed, no additional chemicals are added to the system during operation. KOH serves the purpose of boosting the electrical conductivity of the electrolyte and preventing corrosion of the HPU components. As the water component of this electrolyte solution is consumed in the hydrogen generation process, a supply of de-mineralized water enters the vessel, thus maintaining the electrolyte concentration.

Table 1 – Electrolyte Specifications

Water Supply Parameters

Metric	Units	Specification
Flow	Liters/hour	Nom. 150
Pressure	PSIG	Max. 15
Temperature	C	Min. 65.5

Water Quality Parameters

Metric	Units	Specifications
PH		7.0-8.0
Resistance	Ohm cm	$\geq 1 \times 10^{-5}$
Chlorine Ion	Ppm	Max. 2
Turbidity	Ppm	Max. 1

Electrolyte Solution Analysis

Metric	Units	Specifications
PH		7.0-8.0
Resistance	MΩ cm	Min.$\geq 1 \times 10^{-5}$
Conductivity	µS/cm	<1 µS/cm
Chlorine Ion	Ppm	non-detectible
Turbidity	Ppm	<50 ppm

PPASE SYSTEM TESTING

NAER developed a Test Procedure to measure the power consumption and the amount of hydrogen being produced..

The Protocol:

i) Include a list of preconditions and inspections to be assessed and confirmed prior to commencing the test.

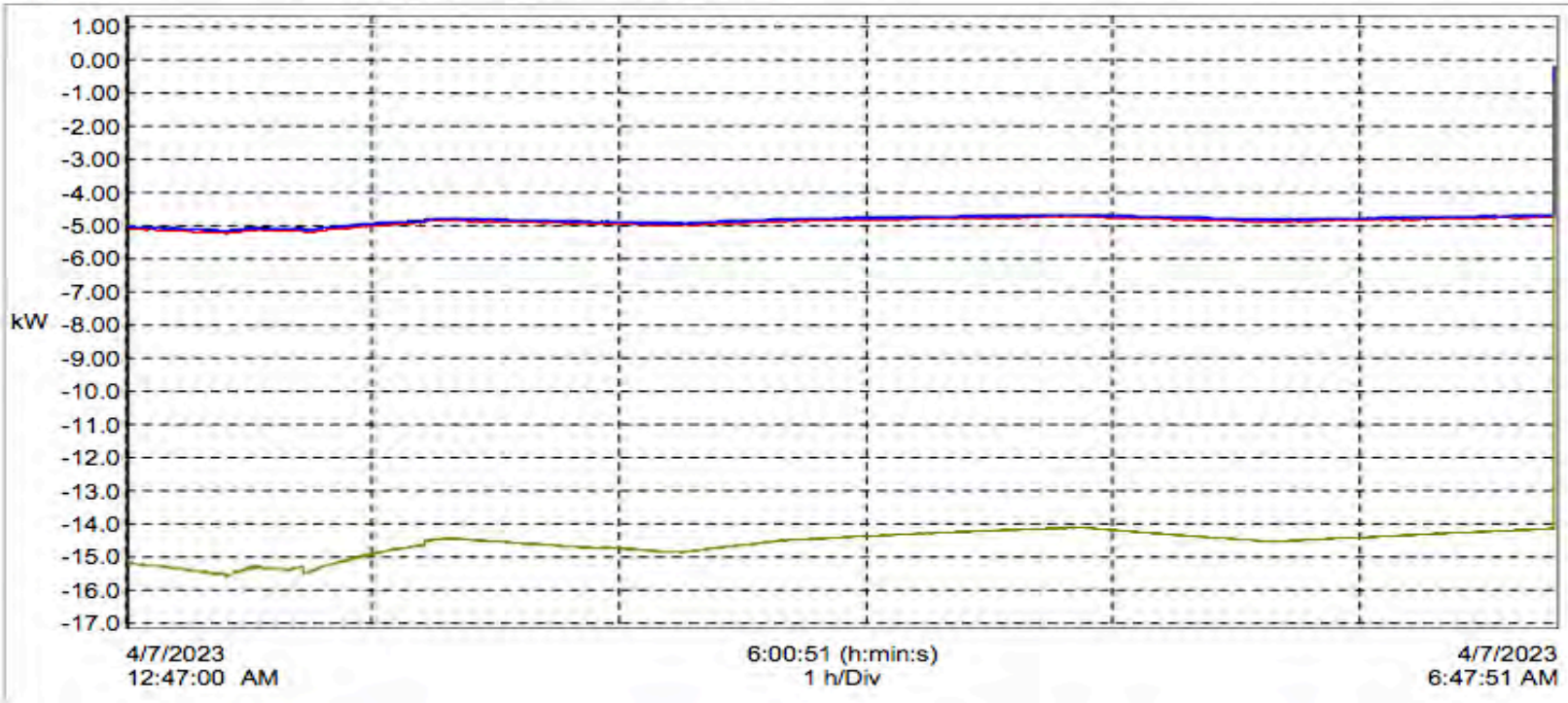
ii) Set specific data log sheets that identified all data to be collected during the test and established verification and signoff procedures to ensure the validity of collected data.

iii) This Test Procedure and associated data sign off sheets are included (in the full report) as Appendix A. Included in the data collection protocol was the collection of gas samples from the HPU for the purpose of confirming the presence of a stable rate of electrolysis during the one-hour data collection period.

Power Consumption Calculations

The power consumption of the HPU during the final hour of the test procedure was determined by collecting power load data using a calibrated Data Logger at two second intervals.
The chart in Table 3 below shows the power delivered to the HPU over the six-hour duration of the Test Procedure.
The chart illustrates that the power consumptions was stable and the average of the total (PT) power consumption was 14.6kW.

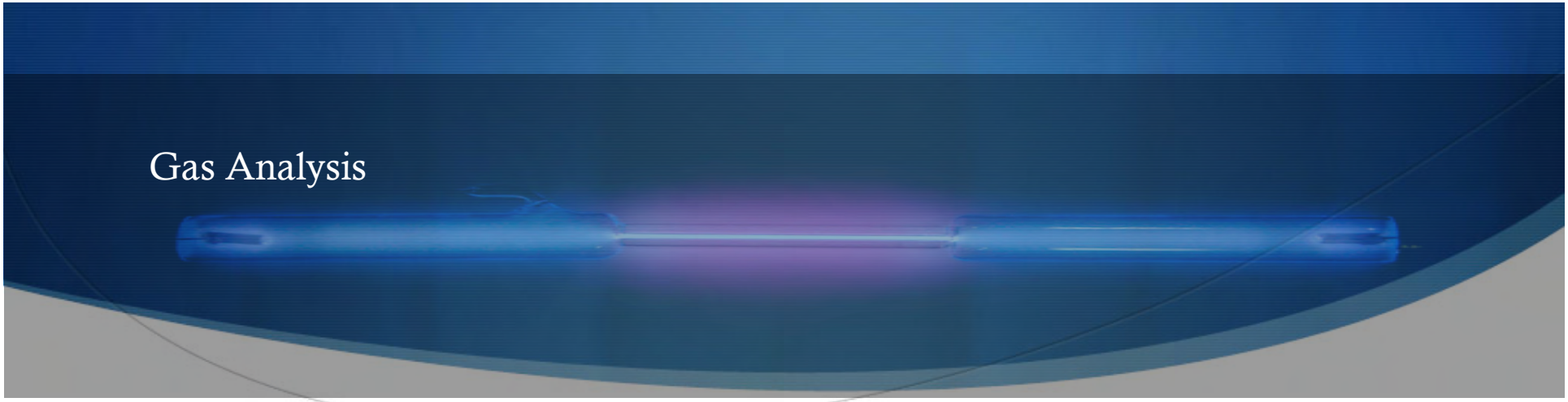
Name	AVG	MIN	MAX	Units
P1 (1 s)	-4.849k	-5.199k	-228.0	W
P2 (1 s)	-4.899k	-5.268k	-238.0	W
P3 (1 s)	-4.847k	-5.187k	-247.0	W
PT (1 s)	-14.59k	-15.64k	-714.0	W



Gas Analysis

The HPU was not equipped with a system to collect and separate the oxygen and hydrogen produced by electrolysis and measure the hydrogen production directly. Instead, the purpose of the gas analysis was to confirm electrolysis had occurred by the presence of oxygen and hydrogen in the collected samples.

Upon the conclusion of testing, NAER produced this report summarizing the results showing the raw data and the calculations used to convert the recorded variables into flow rates and specific values. NAER believes that this test protocol is in conformance with industry prototype testing best practices.



The four gas samples collected during the final hour of test operation were analyzed by

AtmAA Lab

https://atmaa.com/

Given the collection procedure it was expected that atmospheric gas (air) would be found in the gas sample and this was confirmed by the results showing the presence of significant nitrogen which is not a product of electrolysis. As shown in the tables and discussion in Appendix B, the samples confirmed an over-abundance of oxygen compared to typical air gas ratios (25% vs 21%) and the presence of significant hydrogen (18%), thereby confirming that the production of hydrogen gas through electrolysis had occurred during the test.

WITNESS TESTING AT THE FACILITY

On April 7, 2023, NAER tested a single HPU at the ACT Facility in San Juan Capistrano with the objective of obtaining evidence of the behavior of the HPU for hydrogen production versus power consumption as per the Test Procedure.

During the visit, NAER Field Engineers visually observed the arrangement of equipment in the facility, installed temporary monitoring and measurement equipment, observed the operation of the HPU over a six-hour period, and collected data and gas samples during the final hour of this test period. The gas samples were subsequently delivered to the AtmAA laboratory in Calabasas, California.

The HPU test took place over a period of approximately twelve hours. This section is a collection of independent remarks regarding NAER Field engineers' observations during this visit to the facility.

TEST RESULTS AND DISCUSSION

NAER was able to observe the successful operation of the HPU (subject to sub-optimal factors discussed below) for the planned six-hour test run and gathered specific power and electrolyte consumption data during the final hour of the six-hour period, per the Testing Procedure.

Table 3 –Test Results and Calculations

Measurement Device	Location	Function	Observation
Level Line Marker on Tank Wall	Internal wall of reaction vessel.	Measure electrolyte level of the HPU tank	Water level decreased during HPU operation; Amount of water used was 201 liters during the test period
Power data logger AEMC Instruments Model PEL 103 Calibrated 1-23	208 VAC into power supply transformer	Continually measure the Power Consumption for the HPU's transformer	Power usage increased as the temperature increased and was stable once the HPU was at operating temperature at 14.85 kW
Power consumption per unit of Hydrogen Production	(calculation)	Determine electric power consumption per unit of hydrogen production	kWh/Kg Hydrogen: 0.74

As calculated in Table 3 above, the HPU was able to generate a kilogram of hydrogen using less than one kWh of electric power. In preparing to conduct the test, ACT informed NAER that the system would be operating only on the + 120 VPDC power to the cell stack do to the configuration of the transformer. Consequently the stack was only receiving + 120 VPDC during the test when typically the stack would receive – 120 VPDC if the Full Phase Rectifier could be powered from the transformer. The significance of this is that the cell stacks only received power during the positive phase of the 120 VAC input to the rectifier, which results in less hydrogen production than designed. ACT stated that if the full system could be powered with as designed utilizing both + & - pulsed 120V DC then the hydrogen production efficiency would be greater than observed.

In addition to the electrical supply issue, ACT noted that the electrolyte solution (DI water and KOH) was set to 0.1% mass/volume KOH rather than the concentration ACT described as optimal which is 1.0% mass/volume KOH solution.
The KOH concentration was lowered due to the electrical configuration of the system, ACT stated that lower concentration also had the effect of reducing the hydrogen production efficiency.

While NAER agrees in principal that the above deviations likely had a negative impact on the HPU performance and power efficiency, it cannot validate the mathematical calculations by ACT of the potential performance of the HPU had these factors not been present. NAER recommends making the necessary changes to the power supply system that will allow the HPU to be operated as designed without risk of system damage or safety concerns. It is NAER's professional opinion that if the system is operated as designed the hydrogen production efficiency should increase.

Power consumption of a fully Integrated System:

As described above, the prototype HPU is comprised of the electrolysis unit. In order to function as a self-contained system, comparable to those technologies referenced in Section 2, the incorporation of "balance of plant" components that each would consume electrical power not included in the power consumption measured and reflected in the above calculations.

These components include:

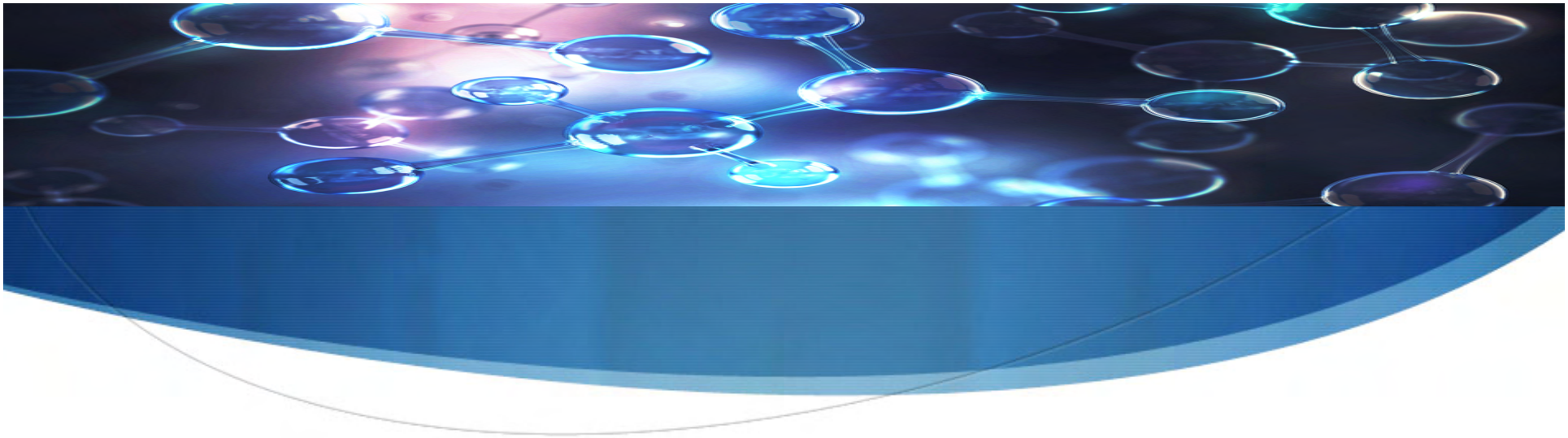
Electrical control system
Electrical power supply
Negative pressure gas separation system
Hydrogen production buffer tank
Gas cooling system
Automatic fill and drain pump systems
Compressor/storage tanks
System controls / miscellaneous valves and instrumentation

NAER estimates that these components, once engineering and incorporated into an integrated HPU, would increase the power consumption of the system by 6-8kW. The impact on these adjustments to the efficiency of the HPU would be to increase the power consumed per Kg of hydrogen produced to 0.9-1.2 kWh/Kg.

PRELIMINARY ASSESSMENT OF COMMERCIAL POTENTIAL

The power consumption of the HPU per Kg of produced hydrogen of less than 1kWh is significantly below those levels in the 40-55kWh range disclosed by leading manufacturers of commercial electrolyzer and fuel cell products. Moreover, the adjusted power consumption reflecting the estimated "balance of plant" load that would be incorporated into an industrial project of 0.9-1.2 kWh/Kg is significantly below those of current market participants. It is also noted that the power consumed in the HPU is less than the power that could be produced by combusting this hydrogen in a utility scale gas turbine or other electricity generation system, raising the prospect of a "self-sustaining" power generation operation.

While publicly verifiable information is not currently available, NAER is aware of more recently commercialized technologies that, similar to the ACT technology, rely upon the electrolysis process but apply novel ancillary technologies to boost efficiency.



As market growth and government tax incentives drive investment in hydrogen production technologies, (both electrolysis-based and otherwise) it is reasonable to predict that rapid cost improvements will continue. However, at the present time it appears that the ACT technology has the potential to become a disruptive, low cost hydrogen production system in a very fast growing market. This supports the argument for further investigation of the ACT technology, beginning with investment in the design and development of a fully-integrated demonstration system that would produce an “apples to apples” comparison with the production economics of industrial projects using established electrolysis methods.

"Although the system seems to violate the law of conservation of energy, the ACT system does produce the hydrogen gas at the efficiencies stated in this report as the physical data determined the efficiency. NAER states that we do not understand how this ACT process accomplishes this; the physical empirical data cannot be denied.."

CALPWR Authorization to Install- ACT Fuel Cell Technology

calpwr

3/6/2024

John Scalone

Director
NAER

Calpwr owns and operates a 750 kW Cogeneration plant located at the City of Oceanside's San Luis Rey wastewater treatment plant located at 3950 N River Rd, Oceanside, CA 92058. The Calpwr plant supplies power and heat to the City of Oceanside's wastewater treatment plant under the current power purchase agreement.

NAER is fully authorized by Calpwr to install, test, and operate an ACT hydrogen production unit that will be located on the property where the Calpwr Cogen plant is located.

As per the discussions with the City of Oceanside no permits or authorizations are required since the plant belongs to Calpwr, and this is considered an improvement or modification to the existing Cogen facility.

The only notification that is required is to the San Diego County APCD, this notification has already been made.

The technology is being installed at no cost to Calpwr or the City of Oceanside, ACT will retain all hydrogen tax credits for the project.

Calpwr understands that this is a new technology that will be monitored, operated, and maintained by NAER Inc., throughout the term of the existing PPA contract between Calpwr and the City of Oceanside.

The hydrogen production unit being installed by NAER inc. will provide Syngas, that is HHO gas blended with the existing digester gas to provide the fuel required by the engine generator so no natural gas will be required to run the engine in the future.

Each Party shall indemnify, defend, and hold the other Party harmless from all liabilities, costs and expenses (including, without limitation, attorneys' fees) that such Party may suffer, sustain or become subject to as a result any misrepresentation or breach of warranty, covenant or agreement of the indemnifying Party contained herein or the indemnifying Party's gross negligence or willful misconduct in performance of its obligations under this Agreement.

Despite any other provision of this Agreement, neither Party will be liable to the other for, nor will any indemnity by either Party under this Agreement extend to, any Consequential Loss suffered by or Claimed against that other Party.

Joseph A Silva

Joe Silva
President
California Power Partners Inc

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JUNE 2024

ACT Technologies

Overview of Business Strategy- Power Generation Sector of Global Industry

SMALL PROJECT TAX CREDIT ECONOMICS

Based on recently issued U.S. tax rules for determining the amount of production tax credits, the ACT hydrogen system will quality for the maximum $3.00/kg credit due to a very low lifetime carbon footprint.

ACT has identified three near term projects that could use early-stage commercial unit designs with an installed capital cost of approximately $1.50-2.00 per annual kilogram of capacity.

Under this framework, a 400kW cogen plant such as Oceanside will have an $1,200,000 capital budget and produce nearly that amount annually in monetizable tax credits, for ten years.

A second location, and an expanded operation at Oceanside, will position the company to generate $3.7 million of PTCs by 2026, providing non-dilutive funding while larger projects are pursued

PPASE identified small scale generation project opportunities

Project	Generation capacity (kW)	Annual mmbtu (1)	Target hydrogen %	Annual Kg of Hydrogen	Annual tax credit
Oceanside, CA	400	33,288	70.0%	174,762	$524,286
CA Location 2	600	49,932	70.0%	262,143	786,429
Oceanside expansion	1,600	133,152	80.0%	798,912	2,396,736
Total	2,600	216,372		1,235,817	$3,707,451

1. *Assumes the generation assets has a 9,500 btu/kWh heat rate.*

The U.S. DOE and IRS programs offer very attractive and valuable support to companies advancing the hydrogen economy

- Hydrogen Hubs: $7 billion in government supported award to seven regional centers, five of which are focused on markets and applications that match PPASE strategy.
  - Corporate partners include automotive and electric utility companies.
- DOE Title 17 Innovative Clean Energy Financing: "Innovative Energy" project that use technically proven but not yet broadly commercially deployed, and "Energy Infrastructure Reinvestment" to upgrade existing electricity infrastructure to reduce GHG emissions.

Corporate R&D and Commercial Development

- 15% of funding released upon technological validation, 85% released for project development (targeting two years for full funding deployment.)
- DOE Grants: Separate from the HHub program, DOE and state research grants of $500,000-25,000,000 are regularly offered to early-stage technology development.
- Corporate and venture capital: Hydrogen has become the predominant focus sector for growth equity and corporate venture capital teams.
  - Electric Hydrogen recently raised $380mm Series C funding at $1.0 billion valuation – with a target 30kWh/Kg electrolysis system, and no revenues.

Project Level Financing

- Bridge to bankability – 80% of capital budget in 20-yr loan at US treasuries +125bps.
- 2022 Inflation Reduction Act: Up to $3.00/kg of green hydrogen production over first ten years of project.
  - Active market for monetization of future credits.
  - "Tax equity" component of projects in capital structure available once the application is proven.
- $300 billion in available loan guarantees currently authorized under the program (May 2023).
- GP-LP drop down model: Sale of post-completion project equity to eager Energy Infrastructure Funds at large profit while retaining tax credit value.

FOSSIL FUEL REPLACEMENT PROJECT – 100MW CCGT PLANT

- Displacing natural gas fuel at a single combined cycle gas turbine power plant in the U.S. could generate over $1 billion in cash proceeds on a capital budget of less than $100 million
- There are 568 GW of such power generation plant in the U.S. alone, representing a massive commercial opportunity

100 MW CCGT plant fuel displacement project proforma economics			
Plant capacity (kW)	100,000	Fuel & Water cost per Kg	
Heat rate (btu/kWh)	7,350	Power consumption (kWh/Kg)	1.50
Capacity factor	98.50%	Cost of power (from plant - $/kWh)	$0.05
Annual operating hours	8,629	Power cost per Kg of hydrogen	$0.08
Percent of Nat Gas fuel displaced w/ H2 fuel	85%		
Annual fuel consumption (mmbtu)	5,390,718	Water consumption per Kg (gallons)	2.38
Fuel price for PPASE H2 fuel ($/mmbtu)	$4.00	Cost per gallon of water (demineralized)	$0.03
Annual hydrogen fuel sales	**$21,562,871**	Water cost per Kg	$0.07
Btu per Kg of hydrogen (LHV)	122,000		
Annual Kg of hydrogen sales	44,186,212	Total power and water costs (annual)	$6,468,861
Production tax credit ($/kg)	$3.00	Estimated plant operations expense	1,250,000
Annual Hydrogen Tax Credit Sales	**$132,558,636**	Total annual fuel, water and opex	$7,718,861
		Gross margin (excl. PTCs)	**$13,844,010**
Total Annual Revenue	**$154,121,507**	% of GM monetized to Infra Fund	85%
		Annual monetized cash flow	$11,767,408
Cost of ACT system ($/annual mmbtu)	$9.00	Infra Fund discount rate for valuation	10.50%
Plant capital cost with 30% redundancy	$63,071,399	**Implied monetization proceeds (one time)**	**$106,467,029**
plus: Engineering, design, water infrastructure	6,000,000	Hydrogen PTC monetization (one time)	946,847,398
Total installed project cost	**$69,071,399**	**Total project monetization value**	**$1,053,314,427**

INITIAL TARGET MARKET

- The ACT system's flexible scale, low development and installation costs and self-sustaining energy profile make it ideal for almost any fuel supply application in the power generation sector.
- ACT is focused on one sector where rapid conversion/adoption potential and Total Addressable Market is most compelling.

Utility scale power generation

- Co-located ACT can generate hydrogen fuel using only a portion of the powergen system it is fueling, effectively creating a self-sustaining power source.
- Most impactful near-term carbon reduction potential due to scale.
  - Switching a 250MW HFO plant to zero emission hydrogen fuel will remove 1.2 million tons of CO_2 annually.
  - Leading turbine and reciprocating engine producers are all launching 100% hydrogen capable systems.
- Interim fuel blending programs can be deployed on most installed CCGT systems, with an attractive cost recovery period.

JUNE 2024

Advanced Combustion Technologies, In

Overview of Act Technology

Technology

ACT FAQ's

- Is ACT Fuel the same as current hydrogen fuel in the market Place? **Yes** – it can be delivered as pure hydrogen or blended with a hydrocarbon like Co to make a syngas
- Is ACT Fuel Safe? **Yes** – It has the same characteristics as natural gas, no more flammable or explosive than natural gas. Hydrogen is less likely to explode due to its ability to quickly dissipate, it is difficult to reach an explosive concentration due to it being the lightest element in nature.
- Is ACT Fuel Green? **Yes** - It is made from water and has no carbon content, Zero Co2, Zero CO
- Is ACT Fuel High Pressure? **No** - It is produced at atmospheric pressure then the pressure is increased via compression to the needs of the equipment it will be supplying.
- Is the equipment to produce ACT Fuel Reliable? **Yes Very** – The ACT fuel units are modular with each module producing a specific amount of fuel. Additional individual modules are added to achieve the needed output of fuel for the project. Each individual module consists of many fuel production cells. The design of the system is intrinsically redundant with no single point of failure that could shut down all fuel production. The ACT fuel production unit is a passive unit, no moving parts.

Technology

ACT Fuel FAQ's (cont'd)

- What is the feedstock to produce the ACT Fuel? **RO/Demineralized Water**
- How much electrical energy does it take to produce the Fuel? **14.7 kW/kg.** The best technology currently in the marketplace requires **47.9 kW/kg** of hydrogen produced.
- Is ACT Fuel a gas or a liquid? **Gas**
- What are the by-products from the production of the Fuel? **Pure Oxygen** for commercial sales or vented to the atmosphere.

Technology

What is ACT Fuel?

The generation of ACT fuel is based on the most advanced H2 electrolysis in the marketplace, utilizing pulsed energy plasma to form a unique hydrogen molecular fuel that requires minimal electrical energy to produce when compared to all of the current electrolysis systems in the marketplace.

Technology

The Benefits of ACT Fuel

- Completely green, sustainable fuel that requires no import of feed stock
- Produced on Site.
- Water is the Feedstock.
- Fixed Fuel Price for the life of the contract.
- Ease of implementation.
- Extremely reliable due to modular construction
- Competitive fuel cost in any market.
- No Co2 or CO Emissions.

ACT

TECHNOLOGY

What is the ACT Fuel?

H2 has been defined as one of the greatest opportunities in current and growing energy supplies. The ACT fuel is a parahydrogen product created from the disassociation of a water molecule into its atomic components.

Through a patented electrolysis platform, **not** standard electrolysis, but a modified form that utilizes frequency and plasma where water is broken down into hydrogen (H2) and oxygen (0) atoms through this process.

ACT's technology is based on the hydrogen obtained in this disassociation, through its patented process. The ACT fuel is produced with a fractional use of electrical energy when compared to the existing electrolysis techniques that are currently in the marketplace.

Water is the only commodity..

Fossil Fuel Replacement

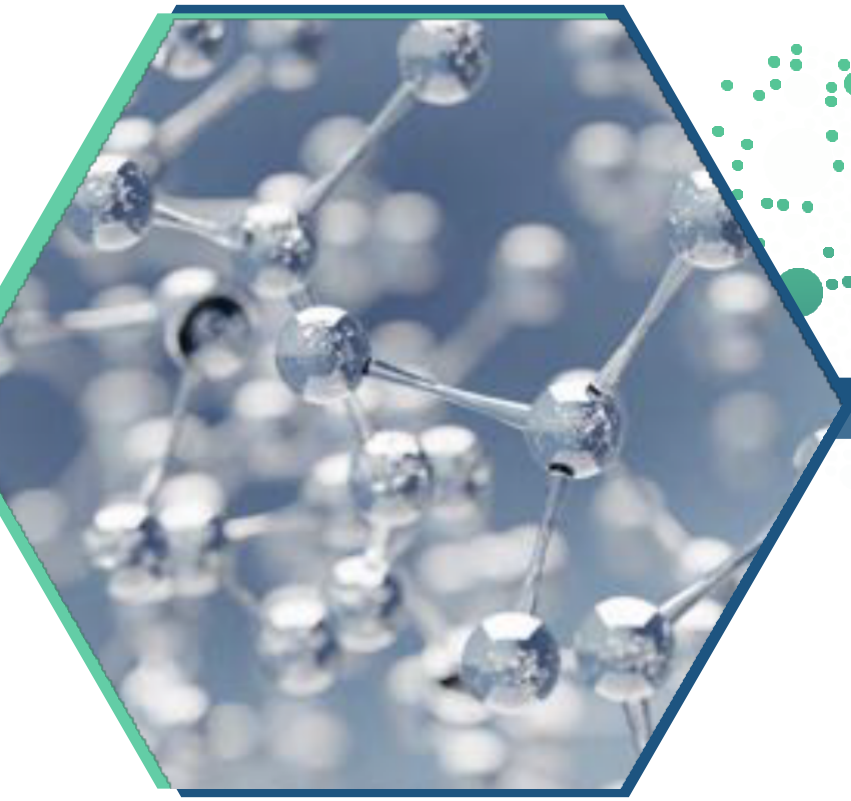
ACT can replace all fossil fuels currently used by the industry such as Natural Gas, LPG, LNG, propane, methanol, Ethanol, Diesel, & Coal.

Stable Hydrogen Fuel Creator

The fuels produced are chemically modified at an atomic level that are stable and easily applied to the application where they are to be used.

PURE OXYGEN AND WATER VAPOUR unique by-products

Current global warming rates are being reversed through the release of pure oxygen into the manufacturing process.



Products

- Hydrogen Fuels
- Clean Oxygen

Fuels Replacement

- Natural Gas
- LPG
- LNG
- Propane
- Methanol
- Ethanol
- Diesel
- Coal

What do we do?

Energy Sector

Focused on providing Green Hydrogen Fuel to replace fossil fuel worldwide, on site, with a reliable, cost-effective solution to eliminating Carbon emissions.

Molecular Fuel derived from H2

ACT fuel is ground-breaking, patented, and the production capacity is unlimited.

Fuel Flexibility

Ability to replace the use of any fossil fuel.

Renewable energy

ACT modules produce fuels derived from natural resources that remove all Co2 & Co Emissions

Environmental

Toxins

Greenhouse
Gas Emissions

Pollutants

Custom Design
Stability
Independence

The fuel production plant is specifically designed to the technical specifications of application.

The plants are modular in design, scalable with extreme reliability do to the built in redundancy.

No exposure to global variations in prices and supplies.

General Overview

A Carbon-Free Hydrogen-Based Fuel Designed for Combustion in Existing Applications

A fossil fuel replacement solution for companies with energy-intensive industrial thermal applications (mining/metals, food/beverages, hospitality, ceramics/tiles/other building materials, tires/automotive, cement, chemicals, steel, glass, extruded aluminum, paint tunnels, others, power generation)

Competitive in cost compared to fossil fuels in most regions of the world.

ACT will build, own, operate and maintain on site its patented fuel supply modules, delivering its fuel under long-term agreements without operating or capital costs incurred by the customer, who will only bear the cost of the fuel supplied under the terms of the agreement.

Designed for combustion.

Contributing with companies to achieve their ESG compliance aims, avoiding the carbon emissions costs of their thermal processes.

Emissions and Safety

EMISSIONS

Emission Factors-lb/MMBTU			
	ACT	NaturalGas[2]	Propane[2]
CO_2	0	123	148
CO	0	0.022 - 0.037	0.023 - 0.039

Monthly for 18,000 MMBTU/monthModule(lb)			
	ACT	Natural Gas	Propane
CO_2	0	2,207,000	2,672,000
CO	0	399 - 665	406 - 684

Safety-focused design

ACT Fuels meet the applied Standards

- NFPA 2 - Hydrogen Technologies Code
- NFPA 55 - Compressed gas and cryogenic fluid code
- CGA 5 - Hydrogen
- CGA G 5.3 - Specification of basic products for hydrogen
- CGA G 5.6 - Hydrogen pipeline systems
- OSHA 1910.103 - Hydrogen System Distances
- ISO 1"6&%-1:1999 - Hydrogen fuel applications
- ABNT ISO/TR 15916:2015 - Hydrogen System Safety

Continuing Validation Research

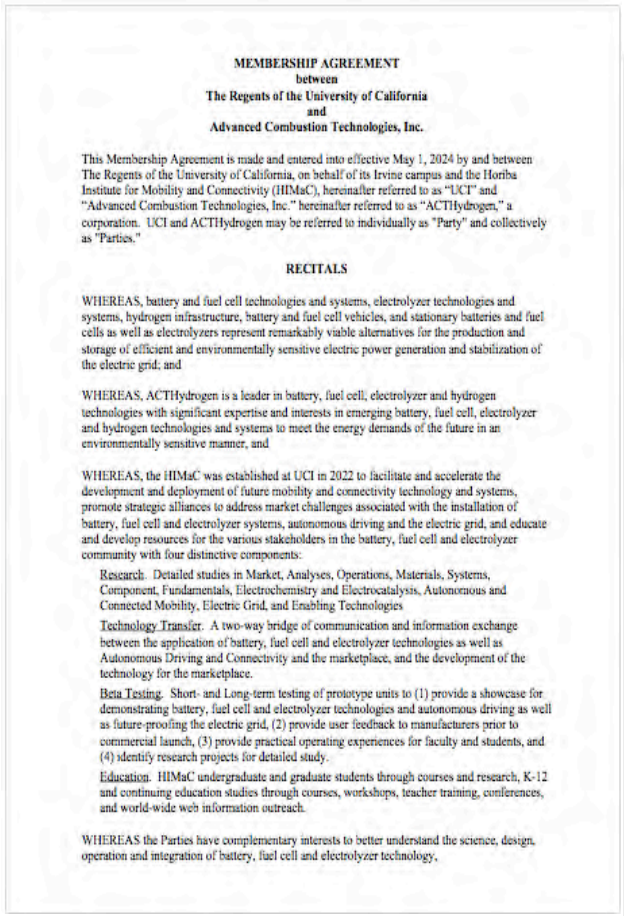
UCI Scientist ACT Technology Continuing Validation Studies Agenda

University of California Irvine's prestigious Hydrogen Hub Development Team will be carrying out additional technology validation studies on ACT's Proprietary Technology during Q3 of 2024.

Advanced Combustion Technologies, Inc. is officially a member of the HImaC Program with The University of California at Irvine.

HIMaC was established at UCI in 2022 to facilitate and accelerate the development and deployment of future mobility and connectivity technology and systems, promote strategic alliances to address market challenges associated with the installation of battery, fuel cell and electrolyzer systems, autonomous driving and the electric grid, and educate and develop resources for the various stakeholders in the battery, fuel cell and electrolyzer community.

Executed Membership Agreement ACT and UCI
Horiba Institute for Mobility and Connectivity (HIMaC)



MEMBERSHIP AGREEMENT
between
The Regents of the University of California
and
Advanced Combustion Technologies, Inc.

This Membership Agreement is made and entered into effective May 1, 2024 by and between The Regents of the University of California, on behalf of its Irvine campus and the Horiba Institute for Mobility and Connectivity (HIMaC), hereinafter referred to as "UCI" and "Advanced Combustion Technologies, Inc." hereinafter referred to as "ACTHydrogen," a corporation. UCI and ACTHydrogen may be referred to individually as "Party" and collectively as "Parties."

RECITALS

WHEREAS, battery and fuel cell technologies and systems, electrolyzer technologies and systems, hydrogen infrastructure, battery and fuel cell vehicles, and stationary batteries and fuel cells as well as electrolyzers represent remarkably viable alternatives for the production and storage of efficient and environmentally sensitive electric power generation and stabilization of the electric grid; and

WHEREAS, ACTHydrogen is a leader in battery, fuel cell, electrolyzer and hydrogen technologies with significant expertise and interests in emerging battery, fuel cell, electrolyzer and hydrogen technologies and systems to meet the energy demands of the future in an environmentally sensitive manner, and

WHEREAS, the HIMaC was established at UCI in 2022 to facilitate and accelerate the development and deployment of future mobility and connectivity technology and systems, promote strategic alliances to address market challenges associated with the installation of battery, fuel cell and electrolyzer systems, autonomous driving and the electric grid, and educate and develop resources for the various stakeholders in the battery, fuel cell and electrolyzer community with four distinctive components:

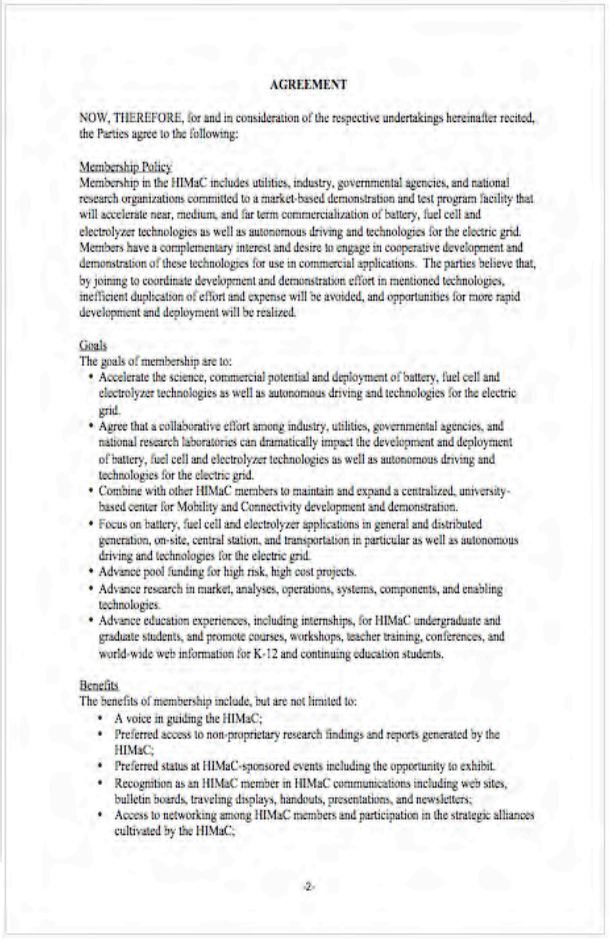
Research. Detailed studies in Market, Analyses, Operations, Materials, Systems, Component, Fundamentals, Electrochemistry and Electrocatalysis, Autonomous and Connected Mobility, Electric Grid, and Enabling Technologies

Technology Transfer. A two-way bridge of communication and information exchange between the application of battery, fuel cell and electrolyzer technologies as well as Autonomous Driving and Connectivity and the marketplace, and the development of the technology for the marketplace.

Beta Testing. Short- and Long-term testing of prototype units to (1) provide a showcase for demonstrating battery, fuel cell and electrolyzer technologies and autonomous driving as well as future-proofing the electric grid, (2) provide user feedback to manufacturers prior to commercial launch, (3) provide practical operating experiences for faculty and students, and (4) identify research projects for detailed study.

Education. HIMaC undergraduate and graduate students through courses and research, K-12 and continuing education studies through courses, workshops, teacher training, conferences, and world-wide web information outreach.

WHEREAS the Parties have complementary interests to better understand the science, design, operation and integration of battery, fuel cell and electrolyzer technology,



AGREEMENT

NOW, THEREFORE, for and in consideration of the respective undertakings hereinafter recited, the Parties agree to the following:

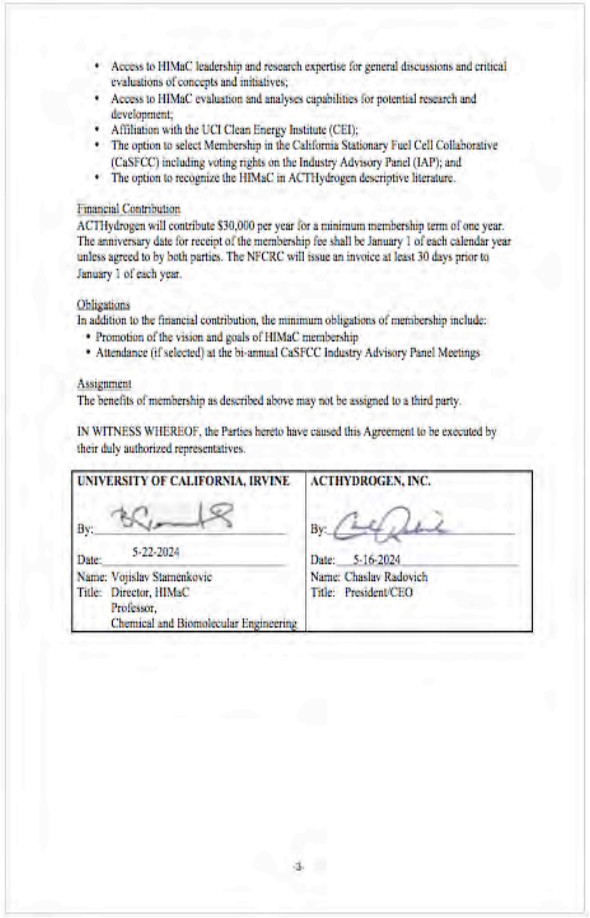
Membership Policy
Membership in the HIMaC includes utilities, industry, governmental agencies, and national research organizations committed to a market-based demonstration and test program facility that will accelerate near, medium, and far term commercialization of battery, fuel cell and electrolyzer technologies as well as autonomous driving and technologies for the electric grid. Members have a complementary interest and desire to engage in cooperative development and demonstration of these technologies for use in commercial applications. The parties believe that, by joining to coordinate development and demonstration effort in mentioned technologies, inefficient duplication of effort and expense will be avoided, and opportunities for more rapid development and deployment will be realized.

Goals
The goals of membership are to:

- Accelerate the science, commercial potential and deployment of battery, fuel cell and electrolyzer technologies as well as autonomous driving and technologies for the electric grid.
- Agree that a collaborative effort among industry, utilities, governmental agencies, and national research laboratories can dramatically impact the development and deployment of battery, fuel cell and electrolyzer technologies as well as autonomous driving and technologies for the electric grid.
- Combine with other HIMaC members to maintain and expand a centralized, university-based center for Mobility and Connectivity development and demonstration.
- Focus on battery, fuel cell and electrolyzer applications in general and distributed generation, on-site, central station, and transportation in particular as well as autonomous driving and technologies for the electric grid.
- Advance pool funding for high risk, high cost projects.
- Advance research in market, analyses, operations, systems, components, and enabling technologies.
- Advance education experiences, including internships, for HIMaC undergraduate and graduate students, and promote courses, workshops, teacher training, conferences, and world-wide web information for K-12 and continuing education students.

Benefits
The benefits of membership include, but are not limited to:

- A voice in guiding the HIMaC;
- Preferred access to non-proprietary research findings and reports generated by the HIMaC;
- Preferred status at HIMaC-sponsored events including the opportunity to exhibit.
- Recognition as an HIMaC member in HIMaC communications including web sites, bulletin boards, traveling displays, handouts, presentations, and newsletters;
- Access to networking among HIMaC members and participation in the strategic alliances cultivated by the HIMaC;



- Access to HIMaC leadership and research expertise for general discussions and critical evaluations of concepts and initiatives;
- Access to HIMaC evaluation and analyses capabilities for potential research and development;
- Affiliation with the UCI Clean Energy Institute (CEI);
- The option to select Membership in the California Stationary Fuel Cell Collaborative (CaSFCC) including voting rights on the Industry Advisory Panel (IAP); and
- The option to recognize the HIMaC in ACTHydrogen descriptive literature.

Financial Contribution
ACTHydrogen will contribute $30,000 per year for a minimum membership term of one year. The anniversary date for receipt of the membership fee shall be January 1 of each calendar year unless agreed to by both parties. The NFCRC will issue an invoice at least 30 days prior to January 1 of each year.

Obligations
In addition to the financial contribution, the minimum obligations of membership include:

- Promotion of the vision and goals of HIMaC membership
- Attendance (if selected) at the bi-annual CaSFCC Industry Advisory Panel Meetings

Assignment
The benefits of membership as described above may not be assigned to a third party.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized representatives.

UNIVERSITY OF CALIFORNIA, IRVINE	ACTHYDROGEN, INC.
By:	By:
Date: 5-22-2024	Date: 5-16-2024
Name: Vojislav Stamenkovic	Name: Chaslav Radovich
Title: Director, HIMaC Professor, Chemical and Biomolecular Engineering	Title: President/CEO

A quick look at Act Technology Technical Drawings

What follows is a set of technical drawings and details about the actual hardware of the ACT Fuel Cell Technology.

The aim here is to illustrate for you the simplicity and “De-Centralized” approach to the design of ACT’s Fuel cell system.

ADVANCED COMBUSTION TECHNOLOGIES, INC.

HYDROGEN PRODUCTION TECH OVERVIEW SUMMARY

ACTPOWER

Technology Description

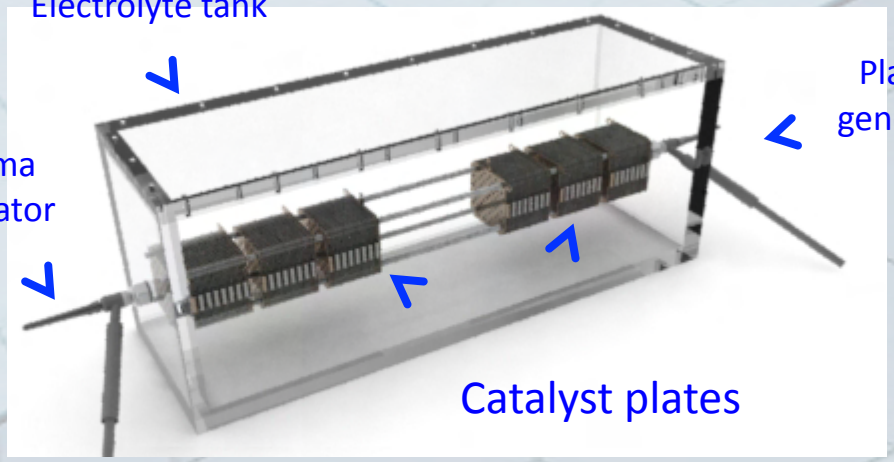
- ACT was incorporated June 11th, 2008
- ACT has since developed numerous power and hydrogen generation systems, which resulted in new technologies captured in US patents
- During 2020 – 2024, ACT added to it's I.P. Portfolio, improved engineering and design technology to improve dual-mode fuel in order to configure for continuous, commercial / industrial power generation.
  - One mode generates hydrogen and oxygen using a patented and novel, power efficient, hydrolysis technology.
  - The second mode generates power by utilizing the freed electrons by giving them a pathway, creating a super capacitor, in the same technology.
  - Power configurations ranging between 1kW, 100kW, and higher.
  - Utilizes limited amounts of consumable electrolyte, tungsten, and other components.
  - Built three industrial-scale fuel cell systems and successfully tested by an independent, third party. The results exceeded our expectations by yielding the least amount of energy input required to produce one kilo of green hydrogen.

Technology Description

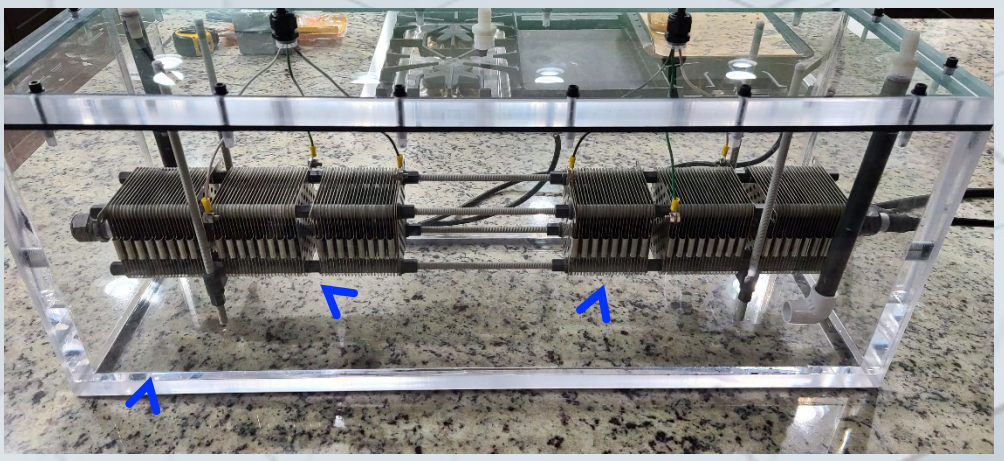
- ACT has built multiple, proof-of-concept, small-scale bench-top test units to enable rapid testing, design, and engineering improvements.
- ***Today, ACT is completing the final improvements it's first commercial, full-scale fuel cell system, which will be installed locally at an industrial site as the first, commercial installation in the field. (Oceanside, California)***
- Preparing final safety improvements to the onsite fuel system at the facility, including any required UL certification.

BENCH TOP TEST & RESEARCH UNIT

- Latest Configuration Bench Top Test Unit
  - (9th iteration)
  - 14” x 12” x 36”
  - *Plates: 4” x 4”*
  - Demo power & H2 generation



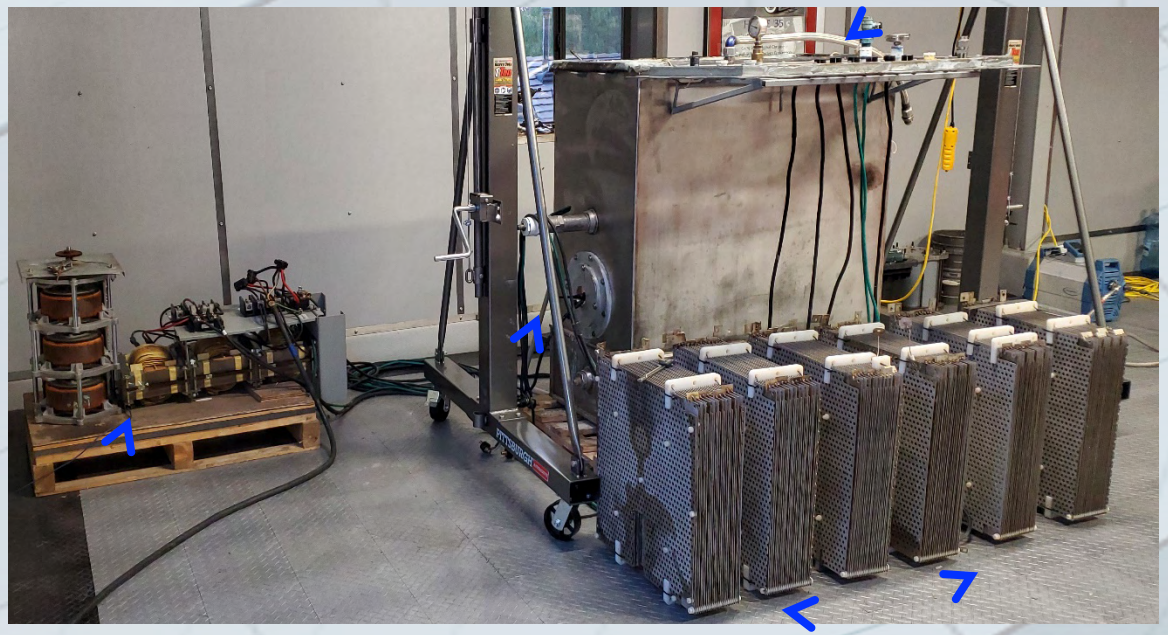
- As-built, Bench Top Test Unit, ready for testing (6/2021)
  - Successful & continuing testing of hydrogen and power production.



Electrolyte tank Catalyst plates

FULL-SCALE PROTOTYPE RESEARCH UNIT

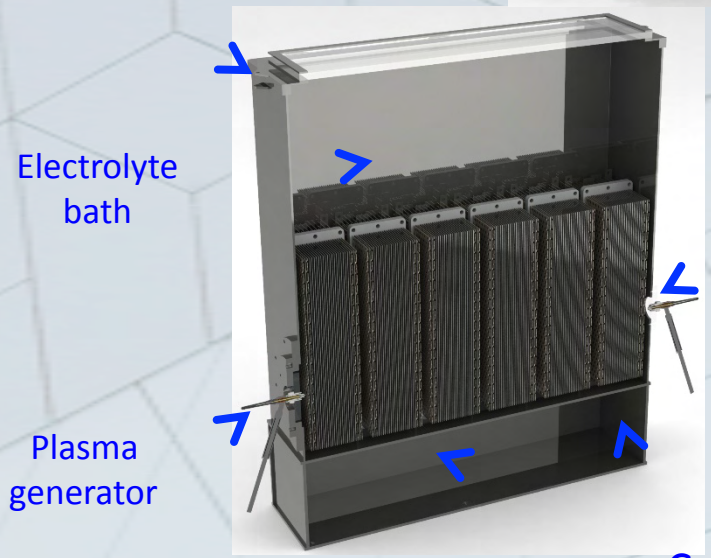
- Full-scale Prototype Unit
  - (6th, 7th, 8th, & 9th generations developed as research progressed)
  - ~4' x 4' x 2'
  - Research & development unit enabled refinement of scaled up power & H2 generation, & latest generation production units
- Shown with catalyst plates removed for reconfigurations
- Completed research enabling multiple redesigns, resulting in 11th generation, commercially operation production units
- *Three prototype units in final testing & pre-manufacturing.*



COMMERCIAL FULL-SCALE UNIT

- Full-scale Production Unit
  - (10th generation)
  - Tank ~5.5’ x 4.1’ x 2.9’
  - Tank mounted on pallet w/ power system cabinets
    - ~10’ x 4’ x 6’ high as-assembled
  - Demo power & H2 generation

- Cut-away view showing interior



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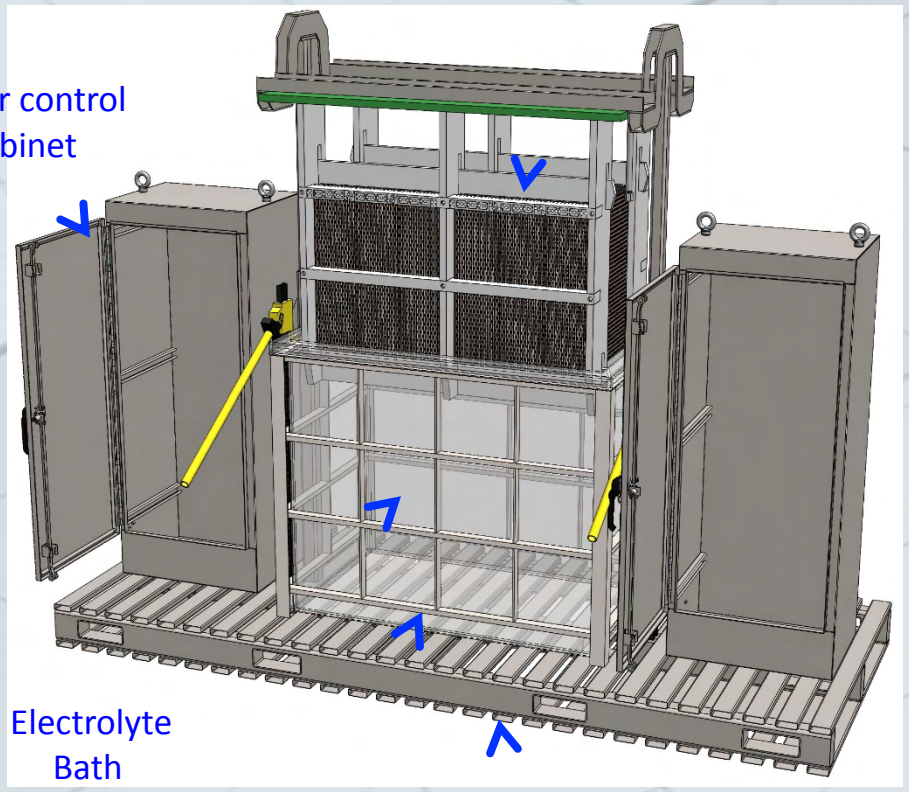
  - Tank mounted on pallet w/ power system cabinets
    - ~10’ x 4’ x 6’ high as-assembled
  - Demo power & H2 generation

- Rendering view showing plates in raised, maintenance position



ADVANCED COMBUSTION TECHNOLOGIES, INC.

ACT's Management and Advisory Board

Board of Directors

Chas Radovich
Chairman and CEO

Kevin Prendiville
Corporate Secretary

Jack Prespa
President-Europe, M.E., Africa

Operations Team

Robert Plaisted
Chief Science Officer

Stephen Saunders
Director of Operations, IT/web/Media

Michael Relph
Senior Project Engineer, Michigan

Advanced Combustion Technologies, Inc. Advisory Board

Gene Johnson "HydroGene"

Hydrogen Industry Pioneer.

Judd Boyer

Hydrogen Technology Innovator,
Editor-In-Chief of
H2 Nation Magazine.

Jorey Bernstein

Business Development
and Capital Markets.

STRAHINJA (Zeka) ZECEVIC, PH.D.

Proven Scientific Leader with passion for R&D in the field of Electrochemical Engineering. Areas of interest and expertise include: Batteries, Fuel Cells, Electro-chemical Capacitors, Corrosion, Electro-chemical Sensors, Plating and Electrolysis-Electrosynthesis.

Leroy W. Delisle

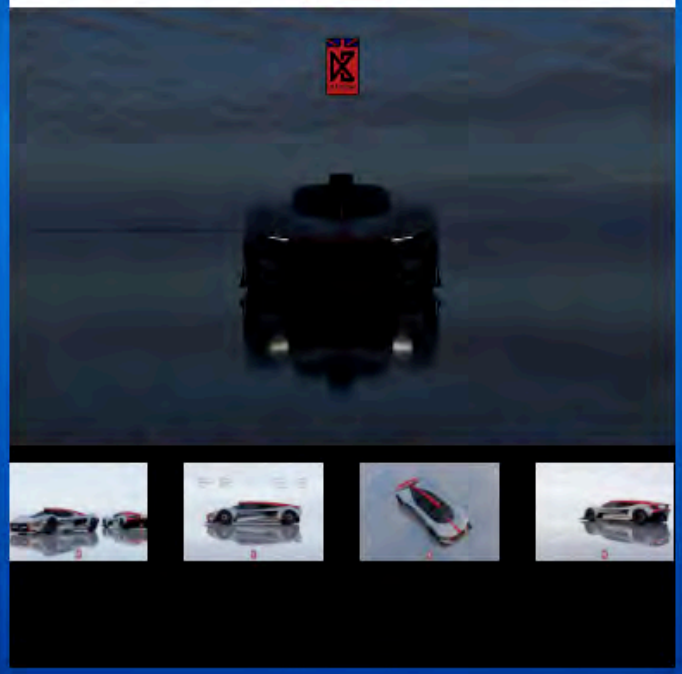
Corporate Business and
Manufacturing Development.

Alvin Snaper

IN MEMORIUM:
Advisor, Scientist, Legend.
Prolific I.P. Developer in the areas of Coating Technology, Plasma, and Disruptive Innovation.

Industry Development Partners

DAWSON RACING



PTI

MILTON

MANUFACTURING PARTNERS

We will be making use of the P.T.I. manufacturing and fabrication facility in Detroit Michigan.
P.T.I has been manufacturing and treating millions of axles annually for the largest automobile manufacturers in the world for over twenty years. They also manufacture many other parts for the big three auto-makers and Toyota
in Monterrey Mexico, and in Detroit.
These facilities currently employ over 2500 people.
The Company also manufactures product for the U.S. Government and Military.

Leroy Delisle, the Chairman and owner of P.T.I. and ACT'S CEO, have a long-term business relationship and close friendship.

Leroy and his team have agreed to manufacture and assemble the components and parts necessary for our Fuel Cell Systems. We are now in the process of planning the manufacturing and robotic welding lines in order to begin manufacturing as soon as possible. Due to supply line logistics issues, we will need to source and warehouse significant materials in order to meet production capacity once commenced.

Working tandem with P.T.I., is MILTON Manufacturing in Detroit Michigan, a Company of great renown, who has carried out dev contracts for the Military and Auto Industry for over 70 years from it's Facility that covers over seven blocks in the "Golden Circle" of Detroit Industry, producing thousands of products during that time.

ACT Install Projects currently under contract

Oceanside California Water Treatment Facility located at San Luis Rey

The San Luis Rey facility, constructed in 1972, treats wastewater to the secondary level by conventional biological treatment followed by clarification. San Luis Rey treats wastewater from the areas east of I-5, and also treats wastewater from the Rainbow Municipal Water District and a portion of the City of Vista. The plant discharges treated effluent through the Oceanside Ocean Outfall.

The San Luis Rey facility also further treats wastewater to produce recycled water. The facility sends treated wastewater through additional filtration and disinfection which allows the water to be used to water golf courses, parks and street landscaping. The recycled water also serves as the source water for Pure Water Oceanside which will create a local supply of high-quality drinking water for Oceanside.

ACT Fuel Cell Technology Install Goal Summary

The Facility is currently powered by a “Syn-Gas” combination of Natural Gas and Methane that is harvested from the Bio-digesters in the Water Treatment chain. ACT Fuel Cell Technology will be installed at the Facility with the goal of replacing the Natural Gas that currently supplies the power to the Facility with Green Hydrogen and Oxygen in the form of HHO (Brown’s Gas). This will be combined with the Methane that is produced onsite by the Bio-digesters and used to power the Facility with a dramatic reduction in fuel cost and carbon emissions from the Facility.

ACT Revenue Projections

ACT Technology Install Completion Timeline

[Click here for a virtual tour of the Facility on YOUTUBE]

NAER - Oceanside Pilot Plant-Overall Budget EPC Budget

Monthly cash expenditure forecast

					EPC					Testing		
	May 24	Jun 24	Jul 24	Aug 24	Sept	Oct 24	Nov 24	Dec 24	Jan 25	Feb 25	Totals	
Month	1	2	3	4	5	6	7	8	9	10		
Salaries / consulting expenses (all 1099)												
John Scalone (Engineering & Project Mangement)	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	150,000	
Total recurring salaries/consulting	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	150,000	
Sub Total	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	150,000	
											-	
EPC (Oceanside)	**NOTE ****	Agreed upon rate until project funding $10K per week										
NAER Engineering, Design, Field Installation	40,000	51,600	51,600	51,600	51,600	51,600	51,600	51,600	51,600	51,600	504,400	
NAER Overhead @ 27%		13,932	13,932	13,932	13,932	13,932	13,932	13,932	13,932	13,932	125,388	
	40,000	65,532	65,532	65,532	65,532	65,532	65,532	65,532	65,532	65,532	629,788	
NOTE 2 Below												
Materials & Consumables & Special Tooling					-	-					-	
Piping, Valves, Instrumentation, Fabrication & Equipment		96,243	96,243	96,243	96,243						384,973	Material & Fabrication (From Material Budget tab)
Cybertrol - Control System	65,800	32,900	32,900	16,450	16,450						164,500	$ 701,748.18
EHT Ventures - HPU Power Supply	47,500				47,500						95,000	384,973
Southwest Thermal Technology - HPU & H2 Gas Hx		22,275									22,275	316,775
Mobilization Fee	100,000											
Fabrication		20,000	15,000	-	-	-					35,000	
Sub Total	213,300	171,418	144,143	112,693	160,193	-	-	-	-	-	801,748	
Commissioning, Startup, Testing and Tuning				10,000	10,000						20,000	
Operations 24-7 field coverage during initial operation						5,000	5,000	5,000	5,000	5,000	25,000	
Travel & Expenses	500	500	500	500	500	500	500	500	500	500	5,000	
Testing & Lab Services	-	-			1,000	1,000	-	-			2,000	
Sub Total	500	500	500	10,500	11,500	6,500	5,500	5,500	5,500	5,500	52,000	
Total Engineering, Procurement & Construction	268,800	252,450	225,175	203,725	252,225	87,032	86,032	86,032	86,032	86,032	1,633,536	
Office overhead and professional services												
Insurance, Accounting T&E	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	95,000	
Sub Total	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	9,500	95,000	
Total monthly expenditures	278,300	261,950	234,675	213,225	261,725	96,532	95,532	95,532	95,532	95,532		1,728,536
Total 10-month expenditures	1,728,536		Total EPC		1,249,876			Total Testing		478,660	**Total**	1,728,536

NOTES

NOTE 2
The Long lead Equipment can be pushed 30 days
if necessary but this pushes out the scheduel day for day
for every day of delay

Oceanside Cogeneration

Provided by Cybertrol

Hydrogen Production Material and Installation Cost

Instrumentation	System	I/0	Tag ID	Size "	Manufacturer	Part #	Web Link		Cost	Lead Time
Flow Transmitter	H2 Gas	4-20 ma	H2-FT-1	3"	Fox Thermal	FT2A-06IESSSTE3B0G3	See Quote - IPC-LLC	$	6,786.00	5-6 wks
Gas Analyzer	H2 Gas	4-20 ma	H2-GA-1	3/4"	HY-OPTIMA - 5033	GEN5 H2 Sensor	See Quote - RUST	$	6,386.75	4 wks
Flow Transmitter HPU Cooling Water	HPU Cooling	4-20 ma	HPUCW-FT-1	1"	Automation Direct	Prosense FSA1-42-27H	https://www.automati	$	199.00	1 wk
Pressure Transmitter Blower Suction	H2 Gas	4-20 ma	HPBS-PT-1	1/4"				$	-	
Pressure Transmitter Blower Discharge	H2 Gas	4-20 ma	HPBD-PT-2	1/4"				$	-	
Pressure Transmitter HPU Cooling Water Pump Suction	Hydrogen Production Tank		HPUCW-PT-1	1/4"				$	-	
Pressure Indicator HPU Cooling Water Pump Suction	Hydrogen Production Tank		HPUCW-PI-1	1/4"	FLW	Wika 9851933	https://store.flw.com/p	$	79.51	1 wk
Pressure Transmitter HPU Cooling Water Pump Discharge	Hydrogen Production Tank		HPUCW-PT-2	1/4"				$	-	1 wk
Pressure Indicator HPU Cooling Water Pump Discharge	Hydrogen Production Tank		HPUCW-PI-2	1/4"	FLW	Wika 9767045	https://store.flw.com/p	$	35.28	1 wk
Temperature Transmitter / Indicator Hydrogen Gas Hx In	Hydrogen Production Tank	4-20 ma & Guage	HPHX-TTI-1	1/2"				$	-	
Temperature Transmitter / Indicator Hydrogen Gas Hx Out	Hydrogen Production Tank	4-20 ma & Guage	HPHX-TTI-2	1/2"				$	-	
Temperature Transmitter / Indicator Hydrogen Gas Hx Chilled Water In	Hydrogen Production Tank	4-20 ma & Guage	HPCIW-TTI-1	1/2"				$	-	
Temperature Transmitter / Indicator Hydrogen Gas Hx Chilled Water Out	Hydrogen Production Tank	4-20 ma & Guage	HPCIW-TTI-2	1/2"				$	-	
Level Transmitter HPU Tank	Hydrogen Production Tank	4-20 ma	HPT-LT-1	1/2"	Intempco	LFT01	https://www.instrumar	$	367.00	4 wks
Level Control Valve HPU Tank	Hydrogen Production Tank	4-20 ma	HPT-LC-1	1/2"	Belimo	B208+LRB24-SR-T	https://bostonaircontr	$	241.00	1-2 wks
Level Indicator (Sightglass) HPU Tank - Red Line Glass Rod Kit 26" x 3/4" Glass Tube O.D.	Hydrogen Production Tank	4-20 ma	HPT-SG-1	26" x 3/4"	Grainger	PENBERTHY LG-26R Item# 11	https://www.grainger.c	$	118.98	1 wk
Dual Vacuum Pressure Indicator HPU Tank	Hydrogen Production Tank		HPT-PI-1	1/4"	FLW	Wika 9767010	https://store.flw.com/p	$	36.80	1 wk
Temperature Transmitter / Indicator HPU Tank	Hydrogen Production Tank	4-20 ma & Guage	HPT-TTI-1	1/2"				$	-	
Temperature Transmitter / Indicator HPU Tank	Hydrogen Production Tank	4-20 ma & Guage	HPT-TTI-2	1/2"				$	-	
Temperature Transmitter / Indicator HPU Tank	Hydrogen Production Tank	4-20 ma & Guage	HPT-TTI-3	1/2"				$	-	
Temperature Transmitter / Indicator HPU Tank Cooling Wate	Hydrogen Production Tank	4-20 ma & Guage	HPUCW-TTI-1	1/2"				$	-	
Temperature Indicator HPU Tank Cooling Water Out	Hydrogen Production Tank	4-20 ma & Guage	HPUCW-TI-2	1/2"	FLW	Ashcroft 50EI60E025	https://store.flw.com/p	$	125.35	1 wk
Temperature Indicator HPU Chilled Water HX Out			HPUCIW-TI-1	1/2"	FLW	Ashcroft 50EI60E025	https://store.flw.com/p	$	125.35	1 wk
Circulating Water Pump	HPU Cooling Water	On/Off	HPCW-P-1		AMT Pumps	AMT 369F-98	https://amtpumps.com	$	1,008.00	1 wk
Mechanical Seal Upgrade for HPCW-P-1	HPU Cooling Water				AMT Pumps			$	138.00	3 wks
Mounting Base Plate for HPCW-P-1	HPU Cooling Water				AMT Pumps			$	200.00	3 wks
Coolilng Water Pump Variable Frequency Drive (VFD)	HPU Cooling Water		HPCW-P-VFD-1		WiAutomation	Allen-Bradley 25B-D4P0N104 Model # CP833FH72MLR -- 081710 --	https://us.wiautomatic	$	362.09	1 wk
Hydrogen Blower	Hydrogen Blower	On/Off	H2B-B-1		Ametek Technical and Industrial Products	Quote Part # HiE833FZ72MLR	See Quote	$	14,676.43	10-12 wks
Hydrogen Blower Variable Frequency Drive (VFD)	Hydrogen Blower		H2B-B-VFD-1		Ametek Technical and Industrial Products	Included in Quote	See Quote	$	-	
Conductivity Transmitter - CX105	Demin Water	4-20 ma	HPMU-C-1					$	-	
Conductivity Sensor - CS675	Demin Water		HPMU-C-1	3/4"				$	-	
Makeup Water Solenoid #1	HPU Demin Makeup	On/Off	DM-SV-1	1/2"	Asco	1/2" Normally Closed Solenoid Valve, 4 CV (24 VDC)	https://www.supplyho	$	175.42	1 wk

Makeup Water Solenoid #2	HPU Demin Makeup	On/Off	DM-SV-2	1/2"	Asco	1/2" Normally Closed Solenoid Valve, 4 CV (24 VDC)	https://www.supplyho	$	175.42	1 wk
Makeup Water Solenoid #3	HPU Demin Makeup	On/Off	DM-SV-3	1/2"	Asco	1/2" Normally Closed Solenoid Valve, 4 CV (24 VDC)	https://www.supplyho	$	175.42	1 wk
Makeup Water Solenoid #4	HPU Demin Makeup	On/Off	DM-SV-4	1/2"	Asco	1/2" Normally Closed Solenoid Valve, 4 CV (24 VDC)	https://www.supplyho	$	175.42	1 wk
Makeup Water Solenoid #5	HPU Demin Makeup	On/Off	DM-SV-5	1/2"	Asco	1/2" Normally Closed Solenoid Valve, 4 CV (24 VDC)	https://www.supplyho	$	175.42	1 wk
Makeup Water Solenoid #6	HPU Demin Makeup	On/Off	DM-SV-6	1/2"	Asco	1/2" Normally Closed Solenoid Valve, 4 CV (24 VDC)	https://www.supplyho	$	175.42	1 wk
Makeup Water Solenoid #7	HPU Demin Makeup	On/Off	DM-SV-7	1/2"	Asco	1/2" Normally Closed Solenoid Valve, 4 CV (24 VDC)	https://www.supplyho	$	175.42	1 wk
Makeup Water Solenoid #8	HPU Demin Makeup	On/Off	DM-SV-8	1/2"	Asco	1/2" Normally Closed Solenoid Valve, 4 CV (24 VDC)	https://www.supplyho	$	175.42	1 wk
Makeup Water Solenoid #9	HPU Demin Makeup	On/Off	DM-SV-9	1/2"	Asco	1/2" Normally Closed Solenoid Valve, 4 CV (24 VDC)	https://www.supplyho	$	175.42	1 wk
Makeup Water Solenoid #10	HPU Demin Makeup	On/Off	DM-SV-10	1/2"	Asco	1/2" Normally Closed Solenoid Valve, 4 CV (24 VDC)	https://www.supplyho	$	175.42	1 wk
Makeup Water Solenoid #11	HPU Demin Makeup	On/Off	DM-SV-11	1/2"	Asco	1/2" Normally Closed Solenoid Valve, 4 CV (24 VDC)	https://www.supplyho	$	175.42	1 wk
Makeup Water Solenoid #12	HPU Demin Makeup	On/Off	DM-SV-12	1/2"	Asco	1/2" Normally Closed Solenoid Valve, 4 CV (24 VDC)	https://www.supplyho	$	175.42	1 wk
						Sub-Total		$	32,990.58	
Controls										
Cybertrol Controls	System Control				Cybertrol Engineering		See Quote - Cybertrol	$	164,500.00	16 wks
480 VAC Breaker	Power Source from Cogen Plant				EATON / Cutler Hamn	Freedom Series 2100		$	1,600.00	???
Power Supply for HPU	Power Supply HPU				EHT Ventures		See Quote - EHT Ventu	$	95,000.00	12-18 wks
480 VAC to 220/120 VAC Transformer	Control Power				EATON - CED - Sante	V48M28T4516LW		$	2,750.00	1 wk
						Sub-Total		$	263,850.00	
Major Equipment										
Electrolite Heat Exchanger T&S Stainless	Electrolite Cooling		HX-4		Southwest Thermal T	Southwest Thermal 636H20F	Quote- Q2311-4844 Sp	$	8,588.00	3 months
Hydrogen Gas Cooling HX T&S steel	H2 Water Removal		HX-5		Southwest Thermal T	Southwest Thermal SPEC 643	Quote- Q2311-4844 Sp	$	13,687.00	3 months
KOH Injection Pot Stainless Steel	Chemical Injection				ChemWorld	Chemical By-Pass Feeder - 5 (	www.chemworld.com/	$	400.00	1 wk
Glasgow Engine fuel train modifications	Engine Generator				Glasgow Engine			$	21,599.53	1 wk
Engine Heads	Engine Generator				Glasgow Engine			$	64,500.00	
Glasgow Engine Piston & Liner replacement	Engine Generator				Glasgow Engine			$	59,904.49	
						Sub-Total		$	168,679.02	

Materials	**Quanity**	
HPU		Prices and Links Updated 3-7-2024 ↓

HPU Tank Internals									
HPU Stack						Material Lead Time - 2 W	$	50,000.00	4 wks
HPU Busbar Asembly							$	2,500.00	
HPU Electrical Receptacles	6				$500 each		$	3,000.00	
HPU Tank									
HPU Tank - 218 Gallon PP Open Top Rectangular Tank	1		48"L x 28"W x 40" H	Ronco Plastics	See Quote - Ronco Plastics	https://ronco-plastics.c	$	1,560.00	4 wks
HPU Tank - Shipping				Ronco Plastics	Business with Lift Gate - Ship		$	155.00	4 wks
Red Line Glass Rod Kit 26" 3/4" Glass Tube O.D.	1	HPT-SG-1	26" x 3/4"	Grainger	PENBERTHY LG-26R Item# 11	https://www.grainger.c	$	-	1 wk
Glass Guage 3/4" O.D. Vessel Connection (Bronze)	1 Pair		3/4"	Grainger	Grainger Item# 11N016 $83	https://www.grainger.c	$	835.12	1 wk
HPU Lid	1			Interstate Plastic	.50" x 30' x 40" clear Polycarb	https://www.interstate	$	527.51	1 wk Out of stock 4-6 wks
HPU Skin - 304 Stainless Steel Sheet	3			Industrial Metal Supp	2-2' x 4' 2-4' x 4' $193.00 ea.	$50 Cut Charge	$	629.00	1 wk
HPU Lid Seal - .250'' (1/4" Actual) Buna-N O-Ring Cord Stock, 70A Durometer, 0.250" Thickness, 25' Piece, Black	2		1/4"	Amazon	$21.03 / 25 Ft	www.amazon.com/Act	$	42.06	1 wk
Gasket Glue	1			Ebay		ASI RP500 Rubber and	$	29.00	1 wk
HPU Lid Brackets - Horizontal latch Clamp	10		720lbf	Granger	3CXE5 $49.15 ea.	https://www.grainger.c	$	491.50	1 wk
HPU Electrical Hole Fittings									
3/4" Polypropylene Loose Tank Fitting w/ EPDM Gasket	6		3/4"	US Plastic	Item# 18735 $8.21 ea.	https://www.usplastic.	$	49.26	1 wk
1/2" Polypropylene Loose Tank Fitting w/ EPDM Gasket	3		1/2"	US Plastic	Item# 18745 $8.12 ea	https://www.usplastic.com/catalog/item.aspx?itemid=147350&clickid=related-slider	$	24.36	1 wk
1" Polypropylene Loose Tank Fitting w/ EPDM Gasket	1		1"	US Plastic	Item# 18747 $10.27 ea.	https://www.usplastic.	$	10.27	1 wk
2" Polypropylene Loose Tank Fitting w/ EPDM Gasket	3		2"	US Plastic	Item# 18739 $18.12 ea.	https://www.usplastic.	$	54.36	1 wk
3" Polypropylene Loose Tank Fitting w/ EPDM Gasket	1		3"	US Plastic	Item# 18737 $59.30 ea	https://www.usplastic.	$	59.30	1 wk
1" CPVC SCH 80 Pipe Unthreaded	10 ft		1"	Grainger	Chlorfit H0800100 Item# 6M	https://www.grainger.c	$	47.59	1 wk
1" CPVC "90"	1		1"	Grainger	MFR# 9806-010 Item# 6ND6	https://www.grainger.c	$	8.89	1 wk
1" CPVC Ball Valve	1		1"	Grainger	Spears 3632R-010C Item# 20	https://www.grainger.c	$	159.30	1 wk
3/4" CU Male Threaded Brass Nipple (6" Long)	3		3/4"	Grainger	MFR# 464-060GR Item# 1VGV1 $19.73 ea	https://www.grainger.	$	59.19	1 wk
3/4" CU Male Threaded Brass Nipple (4" Long)	4		3/4"	Home Depot	Everbilt 802329 SKU: 793818	https://www.homedep	$	62.68	1 wk
3/4" CU Threaded "90" Brass Fitting	3		3/4"	Home Depot	Everbilt 802249 SKU: 770977	https://www.homedep	$	38.01	1 wk
3/4" Threaded Brass Coupling	1		3/4"	Home Depot	Everbilt 801929 SKU: 771010	https://www.homedep	$	10.95	1 wk
3/4" Brass Male Threaded Pressure Relief Valve	1		3/4"	Home Depot	Wilkins P1000AXL-150C SKU: 1000022420 $35.94 ea.	https://www.homedep	$	35.94	1 wk
3/4" Push to Connect x Male Threaded Adapter	2		3/4"	Home Depot	SharkBite Model: U134LFA SKU: 280464 $10.23 ea	https://www.homedep	$	20.46	1 wk
3/4" Female Threaded to 1/4" Female Threaded Brass	1		3/4"x1/4"	Grainger	Item# 22UL49 $9.44	https://www.grainger.c	$	9.44	1 wk
Cooling Water (HPU Tank)									
2" CPVC SCH 80 Pipe (Unthreaded)	20 ft		2"	Grainger	Chlorfit H0800200 Item# 6M	https://www.grainger.c	$	189.36	1 wk

2" CPVC "90"	6		2"	Grainger	MFR# 9806-020 Item# 6ND6	https://www.grainger.c	$	111.30	1 wk
2" CPVC "T"	6		2"	ALSCO	NIBCO SKU: 1801-020 $20.77	https://alscoplastics.c	$	124.62	1 wk
2" Spigot to 1/2" Female NPT CPVC	7		2"	Grainger	MFR# 9838-247 Item # 2PLT7	https://www.grainger.c	$	219.45	1 wk
2" to 1" CPVC Reducer Coupling	2		2"x1"	PVC Fittings Online	Spears EverTUFF 4129249 $2	https://www.pvcfitting	$	52.30	1 wk
1" CPVC Slip x 1" SS Male Threaded Adapter	2		1"	Home Depot	Apollo CPVCMA1 SKU: 10051	https://www.homedep	$	18.00	2 wks
1/2" Male Threaded to 1/4" Female Threaded CPVC Reducer	4		1/2" X 1/4"	Amazon	GF Piping Systems ASIN# B0078S3ODM $22.03 ea	https://www.amazon.c	$	88.12	2 wks
2" CPVC Check Valve	1		2"	Grainger	Georg Fischer 163562107 Item# 33Z886 $604.73 ea	https://www.grainger.c	$	604.73	1 wk
2" CPVC Strainer Valve	1		2"	Grainger	Hayward YS20200S Item# 3CI	https://www.grainger.c	$	720.61	1 wk
2" CPVC Isolation Valves	6		2"	PRM Filtration	SKU: PVC80CPVCBV200TUX $	https://shop.prmfiltrat	$	539.94	1 wk
2" CPVC Butterfly Valve	1		2"	PRM Filtration	SKU: PVC80CPVCBFV200X $2	https://shop.prmfiltrat	$	299.99	1 wk
2" CPVC Socket Flange - For Butterfly Valve (Plus Hardware)	2		2"	PRM Filtration	SKU: PVC80CPVCFGV200X $1	https://shop.prmfiltrat	$	39.98	1 wk
2" Nitrile Rubber Flange Gasket	2		2"	PRM Filtration	SKU: GASK200NITRILEX-2EA $	https://shop.prmfiltrat	$	6.49	1 wk
1/2" SS Vacuum Breaker	1		1/2"	Grainger	MFR# VB0500-SS Item# 6AW	https://www.grainger.c	$	186.26	1 wk
Makeup Water									
1/2" Copper Pipe	30 ft		1/2"	Home Depot	Streamline MH04010 SKU: 148490 $1.95 /ft	https://www.homedep	$	58.50	1 wk
1/2" Brass T	12		1/2"	Home Depot	Everbilt 800699 SKU: 658570 $12.05 ea	https://www.homedep	$	144.60	1 wk
1/2" Brass Cap	1		1/2"	Zorro	Parker MFR# 8BLEN8-B Item# G1006013 $12.09 ea	https://www.zoro.com	$	12.09	1 wk
1/2" Brass 90	1		1/2"	Zorro	JMF MFR# 4338182 Item# G1918363 $8.85 ea	https://www.zoro.com	$	8.85	1 wk
1/2" Brass Union	1		1/2"	Home Depot	Home-Flex 11-429-005 SKU: 1000042171 $11.94 ea	https://www.homedep	$	11.94	1 wk
1/2" Brass Male Threaded to Female Compression	24		1/2"	Home Depot	LTW Fitting HF688805 SKU: 1005452124 $15.94 (5 pack)	https://www.homedep	$	79.70	1 wk
1/2" Brass Female Compression to 3/4" Male Threaded (Hos	12		1/2" - 3/	Home Depot	LTW Fitting HF6881220 SKU: 1005452119 $48.76 (20 pack)	https://www.homedep	$	48.76	2 wks
3/4" Copper Flex Water Line	12		3/4"	Home Depot	Home-Flex HFWCC-07-24 SKU: 1000044300 $20.31	https://www.homedep	$	243.72	1 wk
1/2" Brass Isolation Valve	25		1/2"	Home Depot	Everbilt 107-023EB SKU: 650361 $17.73 ea	https://www.homedep	$	443.25	1 wk
1/2" Copper Solenoid Valve - SEE Instrumentation Above									
Demin Water									
3/4" SS Pipe	40 ft		3/4"	Ferguson	Part# GSP14LF Item# 79033 $4.37 /ft $87.40 /20ft	https://www.ferguson.	$	174.80	1 wk
3/4" SS T	16		3/4"	Ferguson	DK-LOK MFR# DT-12-S $67.20 ea	https://www.ferguson.	$	1,075.20	1 wk
3/4" SS Cap	1		3/4"	Stainless Steel Fitting	C-12 $22.62 ea	https://www.stainlesss	$	22.62	1 wk
3/4" SS 90	5		3/4"	Ferguson	DK-LOK MFR# DL-12-S Part# DDL12S $57.01 ea	https://www.ferguson.	$	285.05	1 wk
3/4" SS Union	1		3/4"	Ferguson	DK-LOK MFR# DU-12-S Part# DDU12S $38.05 ea	https://www.ferguson.	$	38.05	1 wk
3/4" SS Male Threaded to Female Compression	28		3/4"	Ferguson	DK-LOK MFR# DMC-12-12N-S Part# DDMC1212NS $25.12 ea	https://www.ferguson.	$	703.36	1 wk
3/4" SS Flex Water Line	12		3/4"	Grainger	Item# 22N601 $12.44 ea	www.grainger.com/pr	$	149.28	1 wk
3/4" SS Isolation Valve	17	CHANGING	3/4"	Grainger	Item# 796A77 $27.65 ea	https://www.grainger.c	$	470.05	2 months
3/4" SS Male Threaded to Male Threaded (Hose)	12		3/4"	Grainger	Item# 53PZ74 $25.68 ea	www.grainger.com/pro	$	308.16	1 wk

3/4" SS Female Compression to Female Threaded	1	3/4"	Ferguson	DK-LOK MFR# DCF-12-12N-S Item #7834768 $30.82 ea	https://www.ferguson.	$ 30.82	1 wk
3/4" SS Female Compression to 1/2" Female NPT	1	3/4"x1/2	Alabama Industrial	S-Lok Part # SCF-12-8N-S6 $27.92 ea	https://www.alabamai	$ 27.92	1 wk
3/4" SS Female Compression to 1/2" Male NPT	2	3/4"x1/2	Alabama Industrial	S-Lok Part # SMC-12-8N-S6 $22.10 ea	https://www.alabamai	$ 44.20	1 wk
3/4" SS Strainer Valve FNPT x FNPT	1	3/4"	Grainger	USA Sealing ZUSA-VLV Item# 56DK01 $36.47	https://www.grainger.c	$ 36.47	3 wks
Conductivity Transmitter - CX105	1					$ -	
Conductivity Sensor - CS675	1	3/4"				$ -	
Chemical Feed System							
2.5 Gal Chemical Pot Feeder	1	2.5 Gal	Cannon Water Techn	Vector Industries: ECX-2TC (916)-315-2691	https://cannonwater.cc	$ 977.32	2 wks
Potassium Hydroxide Flakes (KOH) 6 lb Bag	4	6 lb	Bulk Apothecary Brar	SKU: B120-009-004 $24.42 (888)-728-7612	www.bulkapothecary.c	$ 97.68	2 wks
3/4" SS Manual Isolation valve Demin Water	4	3/4"	Grainger	Item# 796A77 $27.65 ea	https://www.grainger.c	$ 110.60	1 wk
3/4" SS S40 316L Pipe	10 ft	3/4"	Ferguson	Part# GSP46LF Item# 81385 $7.13 / ft $142.60 /20ft	https://www.ferguson.	$ 142.60	1 wk
3/4" OD SS Union "T"	6	3/4"	Ferguson	Part# DDT12S Item# 7834701 $67.20 ea	https://www.ferguson.	$ 403.20	1 wk
3/4" OD SS Union 90	3	3/4"	Ferguson	Part# DDL12S Item# 7834770 $57.01 ea	https://www.ferguson.	$ 171.03	1 wk
3/4" OD SS Union	7	3/4"	Ferguson	Part# DDU12S Item# 7834719 $38.05 ea	https://www.ferguson.	$ 266.35	1 wk
3/4" SS Male Thread to Female Compression	10	3/4"	Ferguson	Part# DDMC1212NS Item# 7834780 $25.12 ea	https://www.ferguson.	$ 251.20	1 wk
Chilled Water							
1/2" Galvanized Steel Nipple (6 Inches long)	2	1/2"	Home Depot	STZ 30112X6 SKU: 182532 $3.28 ea	https://www.homedep	$ 6.56	1 wk
1/2" SS Isolation Valve	1	1/2"	Home Depot	Guardian 06Q011N04 SKU: 1009035222 $21.40 ea	https://www.homedep	$ 21.40	1 wk
1 1/2" Copper Tubing	50 ft	1 1/2"	Grainger	Streamline 22FC89 $122.44 / 10ft	https://www.grainger.c	$ 612.20	1 wk
1 1/2" Bronze Butterfly Valve	4	1 1/2"	Grainger	Milwaukee BB2-102 Item# 1JRL5 $67.91 ea	https://www.grainger.c	$ 271.64	1 wk
1 1/2" Copper Reducing T (1 1/2"x1 1/2"x1/2")	3	1 1/2"	Amazon	SharkBite UXL08414116 $56.79 ea	https://www.amazon.c	$ 170.37	OUT OF STOCK (3-7)1 wk
1/2" Brass Nipple (6 Inches Long)	3	1/2'	Home Depot	LTWFittings HF10689603 SKU: 1006262360 $8.31 ea $24.93 /3 pack	https://www.homedep	$ 24.93	2-3 wks
1/2" Brass Coupling	3	1/2"	Home Depot	Everbilt 802209 SKU: 747808 $8.67	https://www.homedep	$ 26.01	1 wk
1 1/2" Brass Male Threaded to Female Push to Connect	8	1 1/2"	Home Depot	SharkBite UXL114140M SKU: 1004910286 $30.23 ea	https://www.homedep	$ 241.84	1 wk
1 1/2" Brass Push to Connect "90"	10	1 1/2"	Home Depot	SharkBite UXL0241 SKU: 1004849121 $44.81 ea	https://www.homedep	$ 448.10	1 wk
1 1/2" Fiberglass Piping Insulation (1 1/2" Thickness)	17	1 1/2"	Owens Corning	SKU# 0115015 $15.15 ea.	www.buyinsulationpro	$ 257.55	1 wk
1 1/2" PVC 90 Elbow Cover (1 1/2" Thinckness #12)	10	#12	Proto/JM/Speedline	SKU# 301290 $4.31 ea. Option #12	www.buyinsulationpro	$ 43.10	1 wk
Smooth Alluminum Pipe Jacket #5	18	#5	Metal	SKU# 3605S016 $12.45 ea.	www.buyinsulationpro	$ 224.10	1 wk
Pipe Insulation ID Labels					buyinsulationproducts.	$ 150.00	1 wk
Hydrogen Gas Supply							

				SKU: 20SP4L030C-96				
3" SS 304L Tubing	50 ft	3"	Piping Now	$432.32 /8 ft	https://pipingnow.com	$	3,026.24	1 wk
3" SS 304L "90"	3	3"	Piping Now	SKU: 50E4L030 $17.41 ea	https://pipingnow.com	$	52.23	1 wk
1/4" SS Female NPT Weld Bung	4	1/4"	ACE Race Parts	SKU: 26010 $7.50 ea	https://www.aceracepa	$	30.00	1 wk
1/2" SS Female NPT Weld Bung	2	1/2"	ACE Race Parts	SKU: 26012 $8.95 ea	https://www.aceracepa	$	17.90	1 wk
3/4" SS Female NPT Weld Bung	1	3/4"	ACE Race Parts	SKU: 26013 $9.95 ea	https://www.aceracepa	$	9.95	1 wk
1/4" x 1/4" SS Compression to Female NPT Coupling	4	1/4"	Grainger	Item# 1PZE5 $31.23	https://www.grainger.c	$	124.92	1 wk
1/4" SS Male Threaded Nipple (4" Long)	4	1/4"	Grainger	Item # 61TY89 $11.44 ea	https://www.grainger.c	$	45.76	1 wk
1/2" x 1/2" SS Compression to Female NPT Coupling	2	1/2"	Grainger	Item# 31LC28 $55.26 ea	https://www.grainger.	$	110.52	1 wk
1/2" SS Male Threaded Nipple (4" Long)	2	1/2"	Grainger	Item# 61TY99 $16.27 ea	https://www.grainger.	$	36.16	1 wk
3/4" x 3/4" SS Compression to Female NPT Coupling	1	3/4"	Grainger	Item# 4CXP9 $87.59 ea	https://www.grainger.c	$	87.59	1 wk
3/4" SS Male Threaded Nipple (4" Long)	1	3/4"	Grainger	Item# 61TZ05 $18.00 ea	https://www.grainger.	$	18.00	3 wks
				GROOVJOINT 9200 SKU:				
3" SS Butterfly Valve	4	3"	Get Pipe	3BFELL $414.00 ea	https://getpipe.com/st	$	1,656.00	1 wk
1/2" x 1/2" WLD 1833 Liquid Drainer	1	1/2"	Watson McDaniel	SKU # WLD1833-N	https://www.steamde	$	271.75	1 wk
Flame Arrestor	1		Caltrol	Part #: DFA-4357-8187977	See Quote - Caltrol	$	10,075.67	6-8 wks
Materials	Quantity							
Electrial								
1" Rigid Conduit	150	1"	CEL Supply			$	750.00	1 wk
1" Rigid Couplings	10	1"	CEL Supply			$	30.00	1 wk
1" Rigid Male Coupling	2	1"	CEL Supply			$	20.00	1 wk
#6 Wire	600 ft		CEL Supply			$	5,160.00	1 wk
Control Wire	1500 ft		CEL Supply			$	600.00	1 wk
3/4" Rigid Conduit	60 ft	3/4"	Granger	Item# 6XC34 $35.87 per 10 L	https://www.grainger.c	$	215.22	1 wk
3/4" Ridgid male coupling	t	3/4"	Granger	Item# 6P804 $2.25 ea.	www.grainger.com/pro	$	13.50	1 wk
3/4" Threaded T Type Rigid Conduit Body with Cover & Gasket	11	3/4"	Home Depot	$7.92 ea		$	87.12	1 wk
3/4" Threaded LL Type Rigid Conduit Body with Cover & Gasket	1	3/4"	Grangier	Item# 52AW13 $9.33 ea	https://www.grainger.c	$	9.33	1 wk
#12 Wire	100 ft		Home Depot	$99.36 100 LF		$	99.36	1 wk
Unistrut	30 ft		CEL Supply			$	150.00	2 wk
U-Bolts - 3"	4	3"		E-Rigging SKU: 94836062 $4	https://e-rigging.com/p	$	16.60	3 wk
Sub-Contractors								
Puretec	One Time Set-up Fee		Puretec		SEE Quote	$	1,287.72	1 wk
Puretec	12 Bottles 4-Week Cost		Puretec		SEE Quote	$	3,383.20	1 wk
Puretec Misc. Costs	Miscellaneous Monthly Costs		Puretec					
Welder								
Controller								
Electrician								
Miscelaneous Materials						$	8,000.00	---
Gas				Based on 4 weeks, at $1,000 a week		$	4,000.00	---
Portable Bathroom	2 months			Delivery & Pickup $250 Monthly Rate $250		$	500.00	1 wk
				20' STANDARD TRI CAM CONTAINER - Standard Shelving (16 ft)				
Storage Container	2 months		Mobile Mini	1 Month Rental $402.01	SEE Quote	$	804.02	1 wk
Storage Container - Delivery & Installation	-		Mobile Mini	Delivery & Installation	SEE Quote	$	999.04	1 wk
-Recurring Charge Per Month after initial 2 months -$402.01								
				Sub Total		$	114,643.31	
Metal Fabrication								
Pipe Stanchions	4	10 ft	MMIX Technologies Inc.			$	1,012.00	6-8 wks
Demin Water Tank Enclosure	1	14'x2'x6	MMIX Technologies Inc.			$	6,102.00	6-8 wks

HPU Tank Frame	1	26"x50" x 44"	MMIX Technologies Inc.		$ 2,204.00	6-8 wks
HPU Tank Skid	1	8"x5'x8'	MMIX Technologies Inc.		$ 4,668.00	6-8 wks
HPU Tank Metal Edging	1		MMIX Technologies Ir		$ 1,432.00	6-8 wks
HPU Tank Lig Metal Edging	1		MMIX Technologies Inc.		$ 1,125.00	6-8 wks
HPU Tank Latch Welding	10		MMIX Technologies Inc.		$ 1,000.00	6-8 wks
Delivery					$ 300.00	
Forklift Rental (Oceanside)					$ 500.00	
				Sub-Total	$ 18,343.00	
				Sub-Total	$ 598,505.91	
Tax	**7.25%**			**Tax**	$ 43,391.68	
Contingence	**10.00%**				$ 59,850.59	
				TOTAL	$ 701,748.18	

ACT Install Projects currently in negotiation, waiting on "Proof of Concept" for commencement

Water Energy Group

Power Production Facility Development

- Hawaii, USA
- St. Croix, Virgin Islands
-

KRITTIKOS Energy Project

Power Production Facility Development for the Country of Greece

Re-MINING Corp

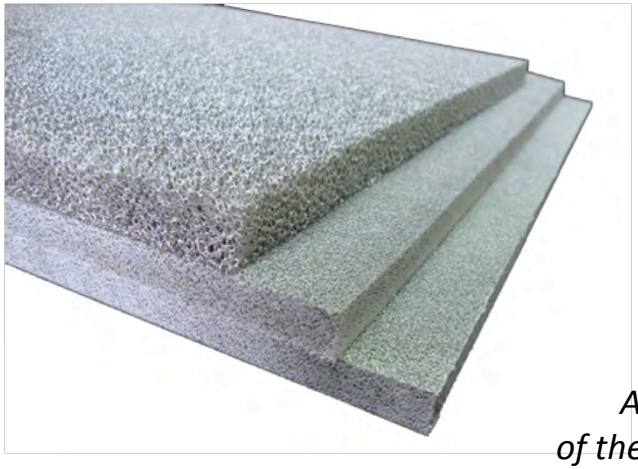
Hydrogen Gas Production for the Company's Pollution Remediation Technologies, Worldwide.

ARAMCO

Hydrogenation Support for the Petroleum Production Industry

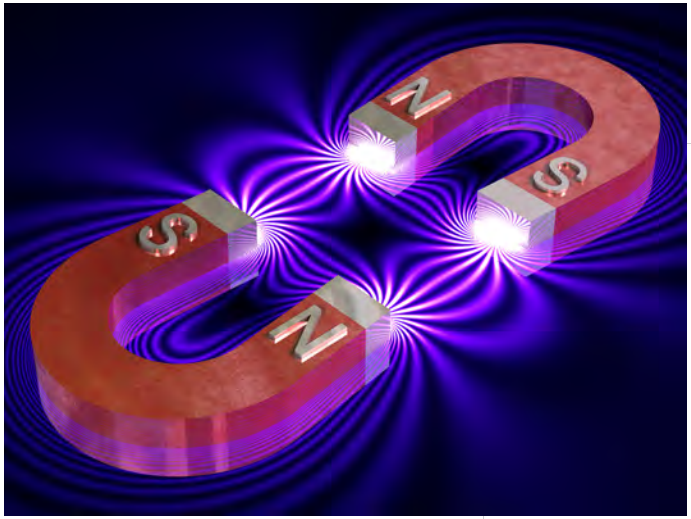
Dawson Racing Team and Ricardo

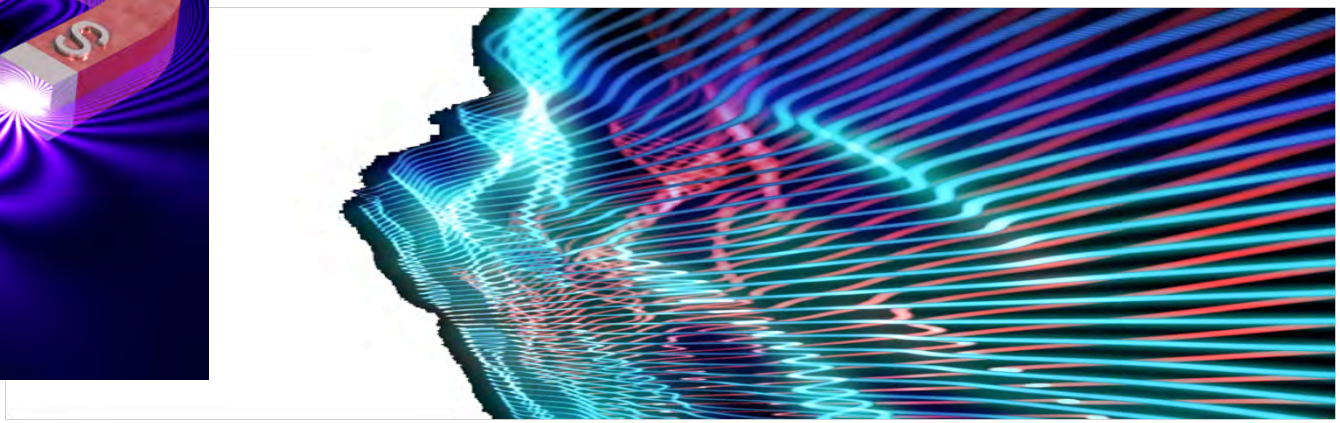
Hydrogen Fuel Production Support for the Advent of Hydrogen-based Formula One Racing.



Current Technology evolutions and Advancements to the Act Fuel Cell Technology Spectrum

Advanced materials integration as a means to expand the ACT Fuel Cell Production Capacities, is well underway in the R&D Department of the Company, with a focus of the evolution of the materials and construction of the plate assemblies and the plate composition, to increase efficiencies in the electro-chemistry taking place during the hydrolyzation process. Additional R&D in the areas of Sound, Magnetism, and other Material Science Design Evolution is also underway.





The Investment Opportunity Summary

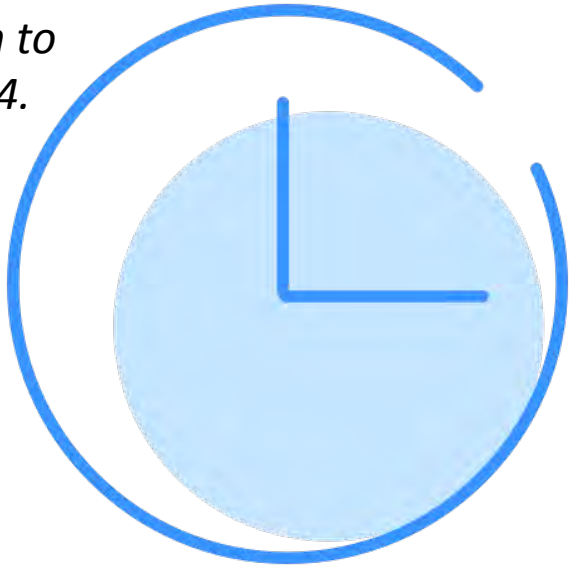
Current Capital Raise Round: 100 Million

Proceeds to fund the commercialization of ACT'S technology through the scaling of fuel cell production in order to meet the global demand for Hydrogen.

Once the initial Pilot Plant is engineered and construction is completed, an estimated twenty facilities will be implemented for global markets, with this capital.

Use of Proceeds and Deployment Timeline Q3 & Q4 2024

Use of Proceeds and Timeline
will change relative to the amount of
Capitalization
that is raised and how rapidly it comes in to
the Company through Q3 and Q4 of 2024.



MORE RESOURCES AND INFORMATION

For more resources and information, please visit the
Act Hydrogen Document Repository Page on our website.
It contains validation studies inn white paper form from the past, videos of Act Fuel Cells in their early stages as well as demonstrations of the current Commercial Scale and Design ACT Hydrogen Fuel Cells.

[Advanced Combustion Technologies, Inc. Document Repository]

We look forward to finding how we might work together !

Feel free to reach out to us ..

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ACTHYDROGEN