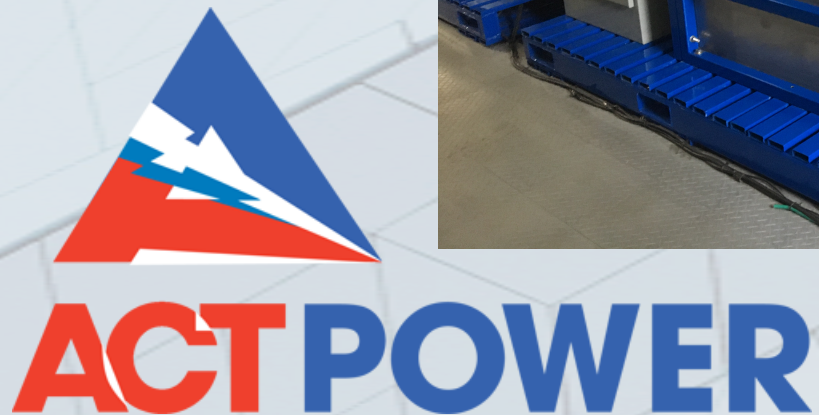


ADVANCED COMBUSTION TECHNOLOGIES, INC.

***HYDROGEN PRODUCTION
TECH OVERVIEW SUMMARY***



ACT CONFIDENTIAL & PROPRIETARY

ACT HYDROGEN IP PORTFOLIO REVIEW 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

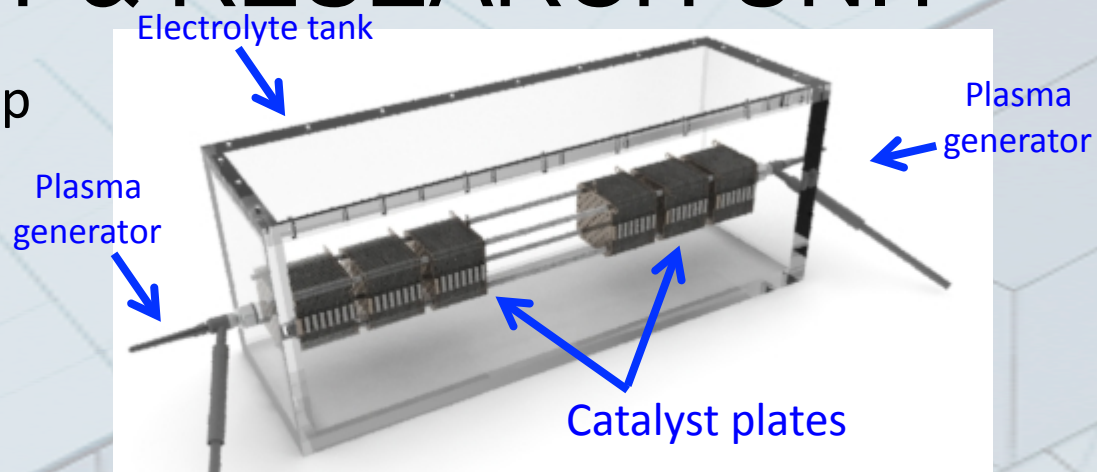
- ACT has built multiple, proof-of-concept, small-scale bench-top test units to enable rapid testing, design, and engineering improvements.
- *Today, ACT is completing the final improvements it's first commercial, full-scale fuel cell system, which will be installed locally at an industrial site as the 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.

ACT HYDROGEN IP PORTFOLIO REVIEW

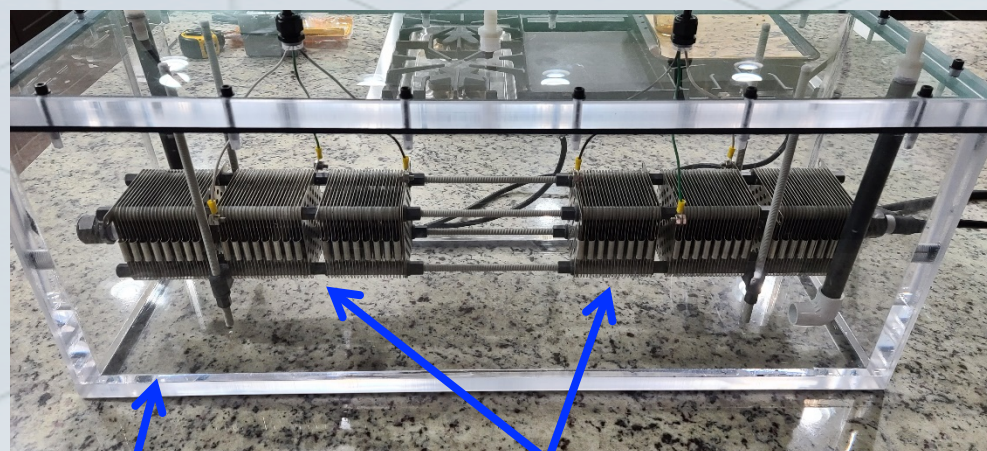
BENCH TOP TEST & RESEARCH UNIT

- 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

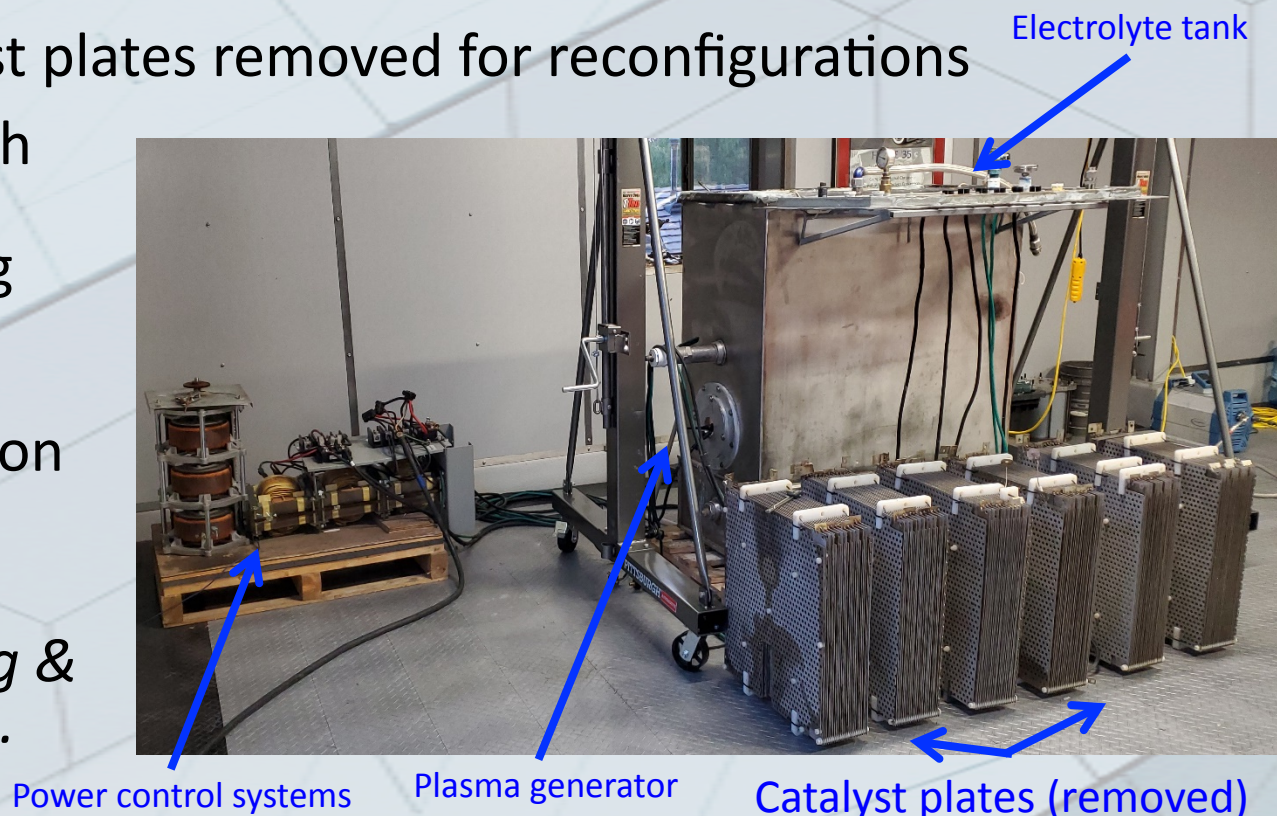
Catalyst plates

ACT HYDROGEN IP PORTFOLIO REVIEW



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.*



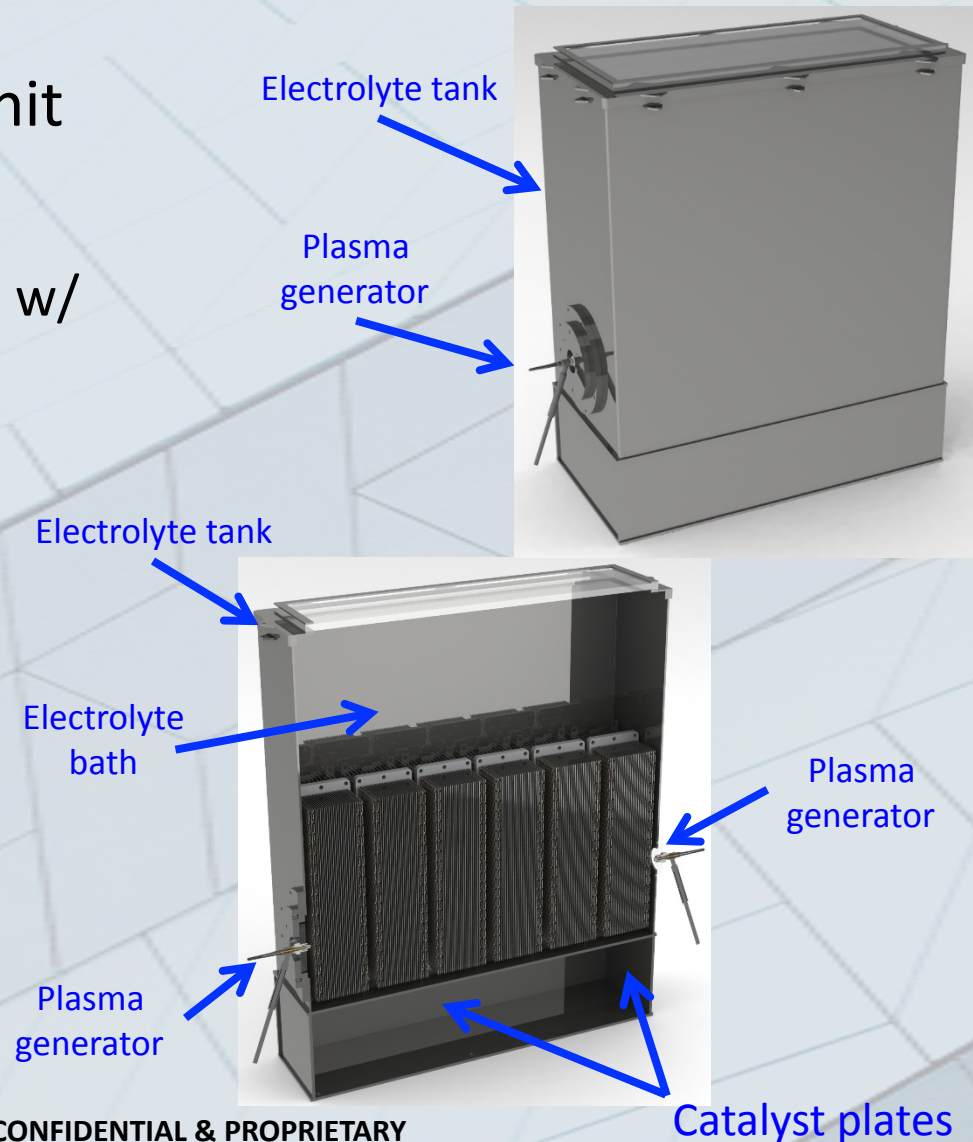
ACT HYDROGEN IP PORTFOLIO REVIEW

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

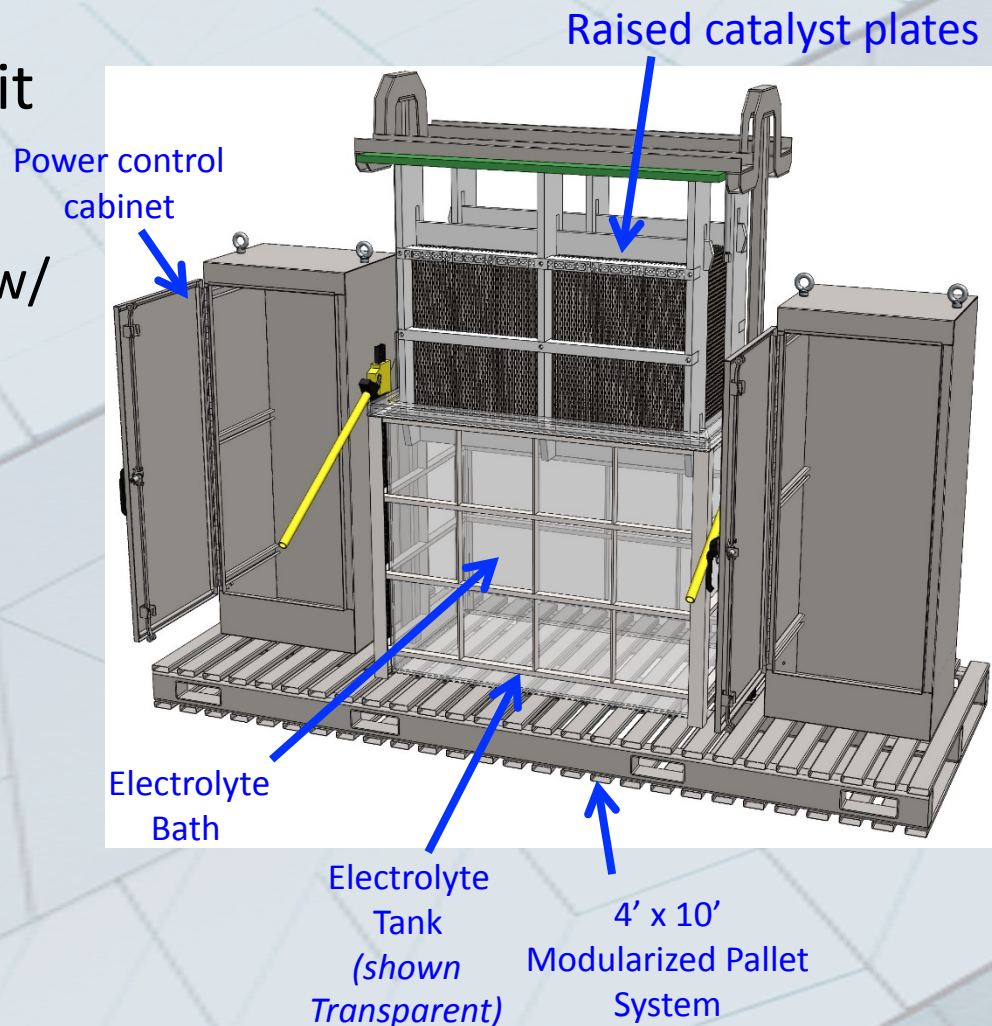


ACT CONFIDENTIAL & PROPRIETARY

ACT HYDROGEN IP PORTFOLIO REVIEW

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
- Rendering view showing plates in raised, maintenance position



ADVANCED COMBUSTION TECHNOLOGIES, INC.



ACT CONFIDENTIAL & PROPRIETARY