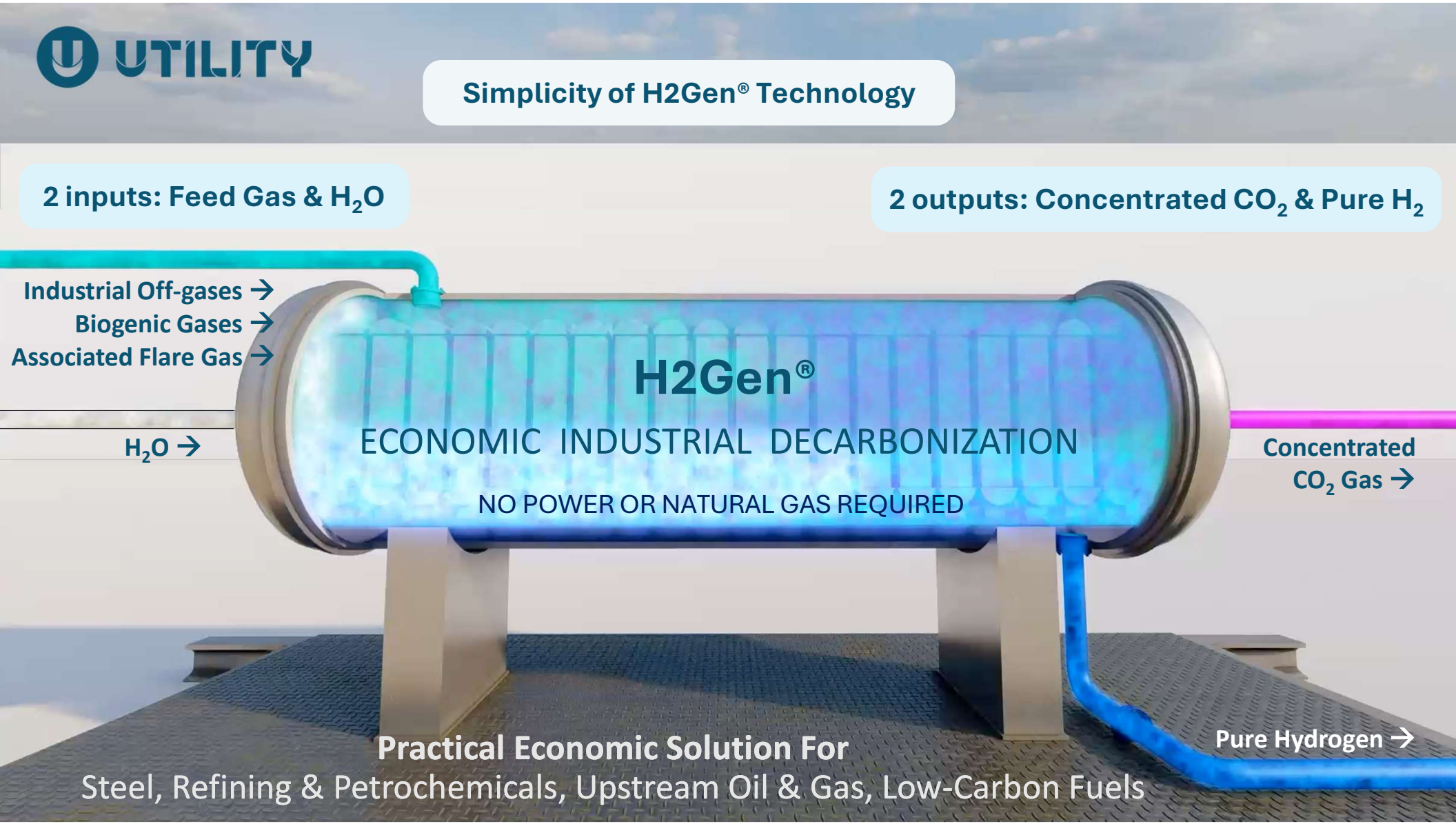

UTILITY
H2Gen®
H2Gen®
Economic Industrial Decarbonization


UTILITY
Simplicity of H2Gen® Technology
2 inputs: Feed Gas & H_2O
2 outputs: Concentrated CO_2 & Pure H_2
Industrial Off-gases →
Biogenic Gases →
Associated Flare Gas →
H_2O →
H2Gen®
ECONOMIC INDUSTRIAL DECARBONIZATION
NO POWER OR NATURAL GAS REQUIRED
Concentrated CO_2 Gas →
Pure Hydrogen →
Practical Economic Solution For
Steel, Refining & Petrochemicals, Upstream Oil & Gas, Low-Carbon Fuels

Economically Decarbonizing the Toughest Industrial Sectors

Gaseous Inputs

- **Industrial Off Gases**
- **Biogenic Gases**
- **Associated Flare Gas**
- **H_2O**



CO_2 Stream Benefits

- ✓ **Concentrated CO_2** stream (40% – 96%)
- ✓ **Single-point CO_2** source for economic CCUS

High Purity H_2 Users

- **Steel**
- **Refining & Chemicals**
- **Mobility**
- **Clean Fuels (SAF, MeOH)**

Value Add to Customers

- Decarbonizes **existing trillion-dollar assets** and processes
- Uses low value **off-gases** to produce **clean H_2 from water** and **concentrates CO2 for low-cost carbon capture**
- **Economic Hydrogen with on-site production, small footprint, flexible operation,** and **seamless integration**

Value Add to Investors

- Solves **multiple industry decarbonization needs** with the **same H2Gen** System
- **High project certainty** - no power & no natural gas needed for hydrogen production, nor new grid infrastructure & permits
- Competitive **from small to large production** capacities

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Strong Project Pipeline: Steel, Refining & Petchem, and Low-Carbon Fuels

6 projects under contract, 40+ project in development under customer assessment

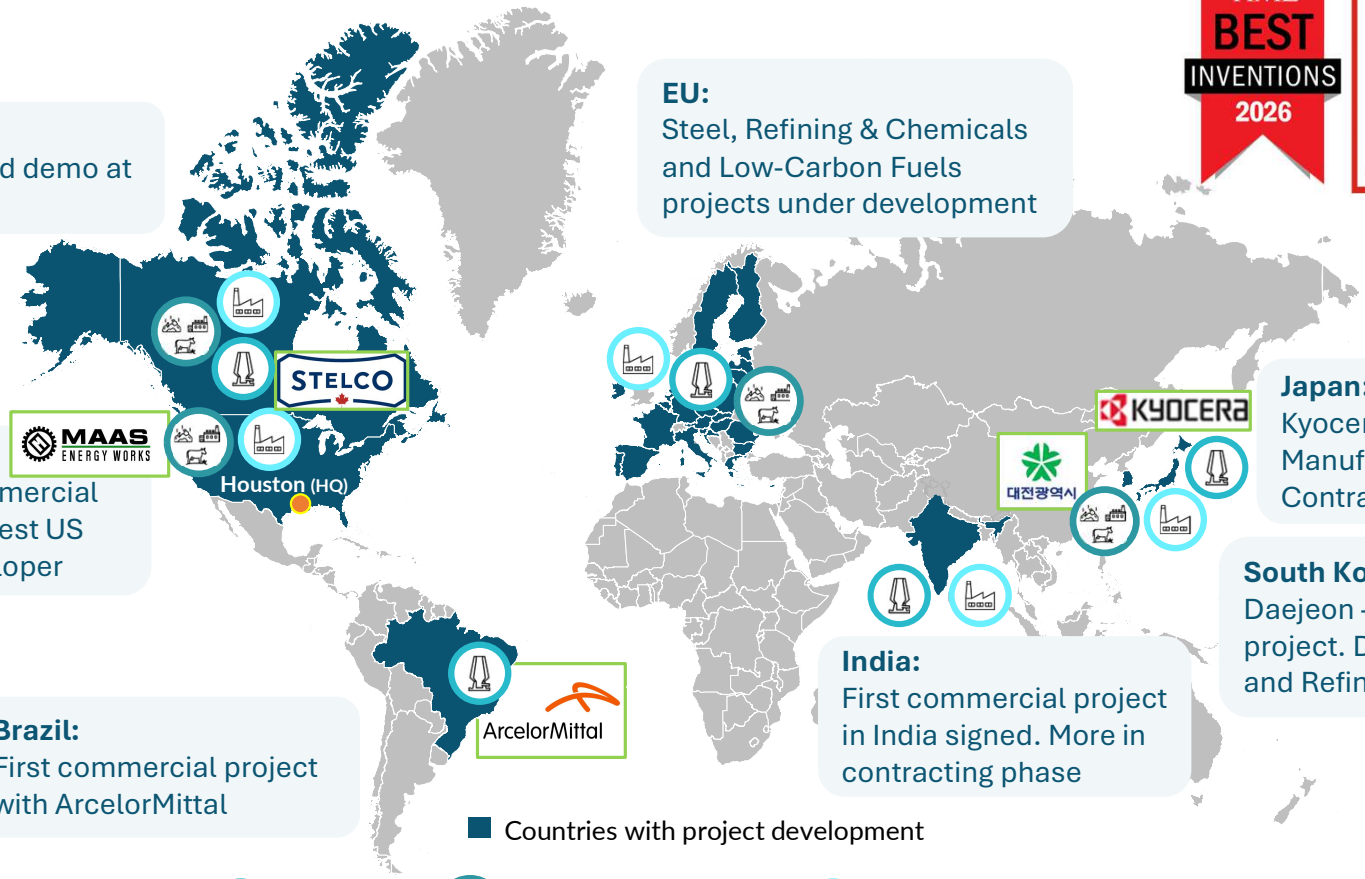
TIME BEST INVENTIONS 2026

TIME WORLD'S TOP GREEN TECH COMPANIES statista 2026

TIME WORLD'S TOP GREEN TECH COMPANIES statista 2025

Canada:
Steel field demo at Stelco

EU:
Steel, Refining & Chemicals and Low-Carbon Fuels projects under development



US:
Mass Energy – commercial H_2 project with largest US dairy digester developer

Japan:
Kyocera – Strategic H2Gen® Manufacturing Partner. Contracting with steelmakers

South Korea:
Daejeon – commercial H_2 project. Developing Steel and Refining projects

India:
First commercial project in India signed. More in contracting phase

Brazil:
First commercial project with ArcelorMittal

Countries with project development

UTILITY

Steel Project | Low-Carbon Fuels Project | Refining & Chemicals

Strong Investor Backing by Significant Players ($200M+ Raised)

Ara Built to Decarbonize.™

Private Equity firm, Utility - only H_2 investment ($8 billion fund)

apg

Major Dutch pension fund managing €600 billion in assets

ArcelorMittal

ArcelorMittal's XCarb® Innovation Fund

aramco

World's largest Oil producer with vertically integrated Refining

SAMSUNG

One of the largest Tech & EPC companies focused in CCUS

ONTARIO POWER GENERATION

Canadian largest clean power utility with focus on hydrogen

SAINT-GOBAIN

Designs, manufactures, distributes advanced ceramics

Steel

H2Gen®: Decarbonizing Existing Integrated Steel Assets

- Maintains **Levelized Cost of Steel** in CO_2 value regions
- **LCOH $1/kg to $2.8/kg**
- **Up to 90% reduction** in Scope 1 emissions
- **Flexible** operations, **Seamless** integration



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First Project (in Canada, 2023)

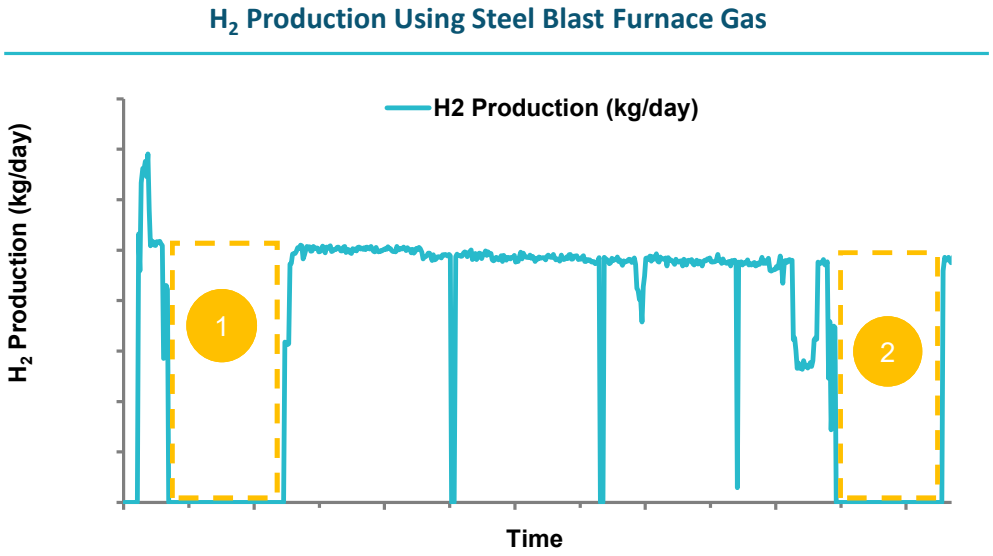
Modular, scalable, factory manufactured, small footprint (40-foot-long ISO container)





Demonstrated Robust Operability Under Real World Steelmaking Operations





H_2 Production Using Steel Blast Furnace Gas

1. Controlled response to unplanned stoppage of blast furnace gas initiating successful automated H2Gen hot standby
2. Planned hot standby due to sub-zero weather risk of freezing lines

~ 20 blast furnace gas interruptions – safely switching into standby and back online in minutes

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Utility's Progression From the Pilot Plant to Industrial Scale Projects

Project Horizon – Pilot Plant
2022 - Proven Technology



- Pre-commercial pilot
- 4,000 hours of runtime
- 1,000 times scale-up from the lab tests
- Performance exceeded numerical models

Northern Forge – Field Demo
2023 - Steel Application



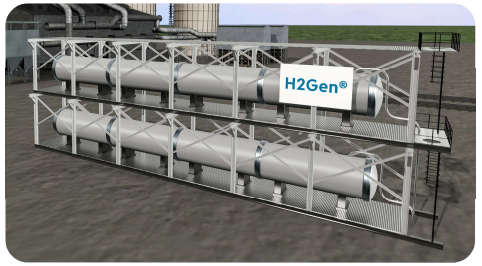
- Hydrogen production using blast furnace gas
- 3,000 hours of runtime
- 1,200 hours continuous run
- Smoothly handled 19 blast furnace upsets w/ 30 minutes responsiveness

Project Frontier
2025 - Commercial Reactor



- Scaled commercial reactor
- Over 3,000 hours of runtime
- Cumulative 10,000 hours since 2022 with no measurable degradation
- Optimized controls and tested durability

Industrial Scale Projects
2026-2028 - Multi-reactor

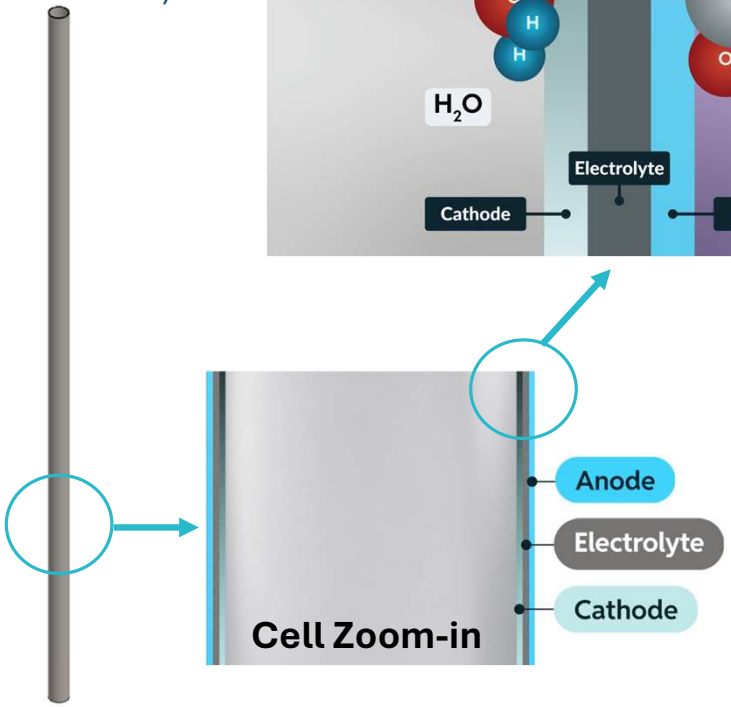


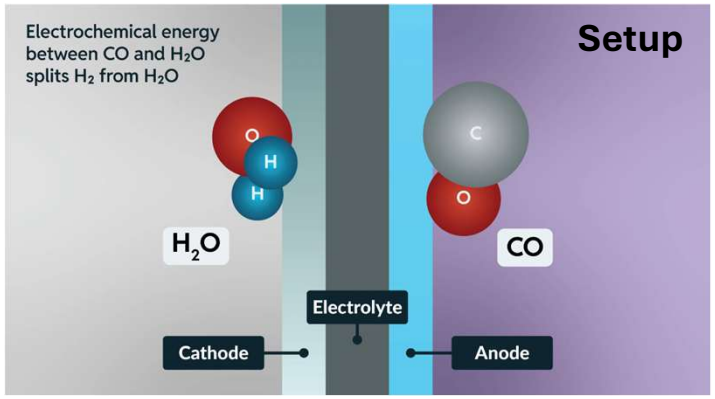
- 6 projects contracted
- 40+ projects globally in development w/ leaders
- Projects with top 10 Steelmakers
- Low Carbon Fuels projects in NA and Asia

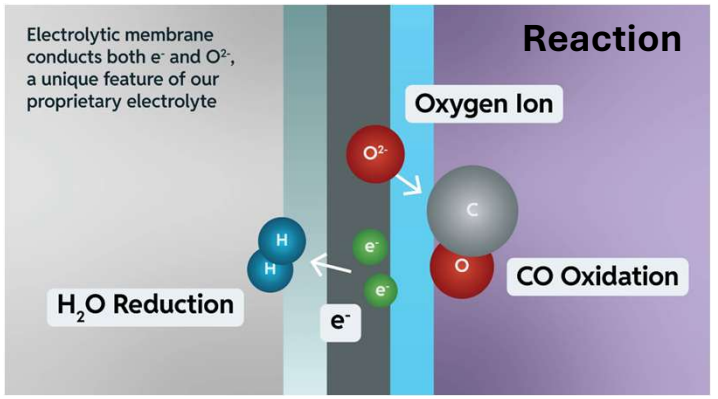
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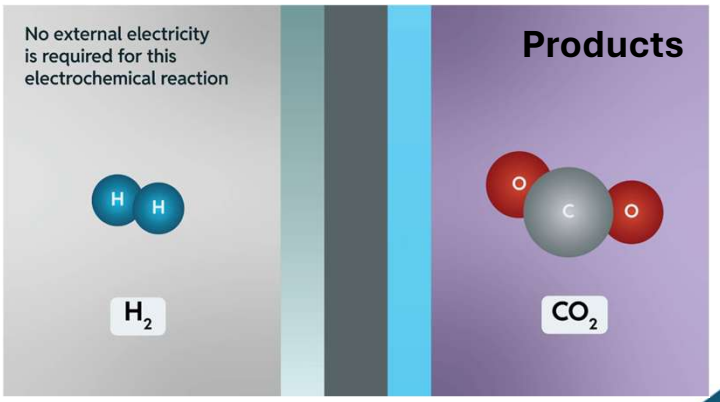
H2Gen® Simplicity – Reaction at a Molecular Level

Single Cell
(2.5 cm diameter tube)









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H2Gen® Reactor Design



Electrochemical Cell (1-inch diameter tube)

Cell Pack

Cell Packs Slide into Pressure Vessel (e.g., ISO container size)

H2Gen® Reactor (nominally 40 ft long)

Reactor capacity depends on the chemical energy in the gases (e.g., biogas has a higher energy content vs. dilute blast furnace gas)

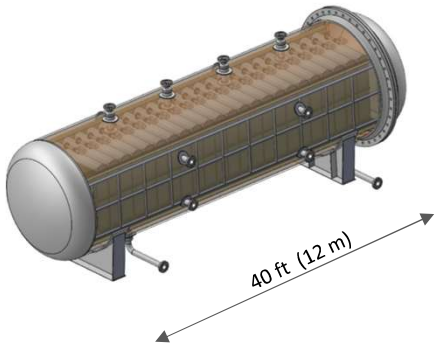
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Plant Size Scale Up

Delivering any size application with a standardized factory manufactured reactor

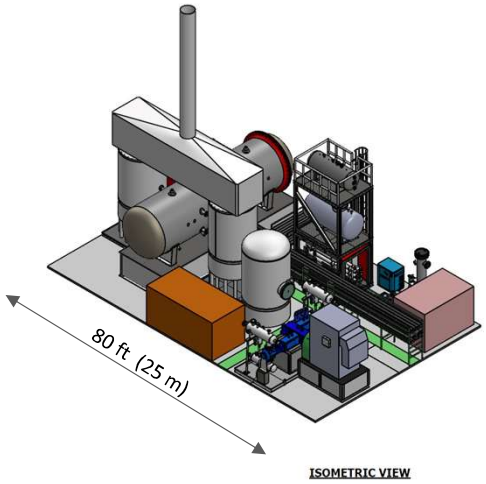
Standardized Reactor

- Factory manufactured
- Optimized for high productivity, low cost, and short manufacturing times



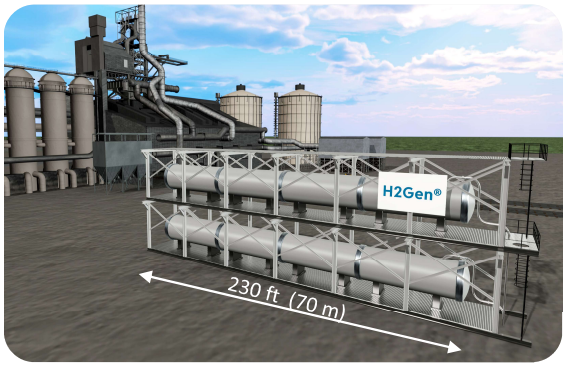
Single Reactor Plant

- Largely standardized plants for the 2 – 5 TPD H_2 range
- Most likely application in biogas to mobility



Plants for Large Applications

- "10 – 500" TPD H_2
- Standard reactors connected for large plant capacity
- Small footprint, seamless integration with the asset (steel, refining, petrochemicals)



UTILITY

Thank You

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