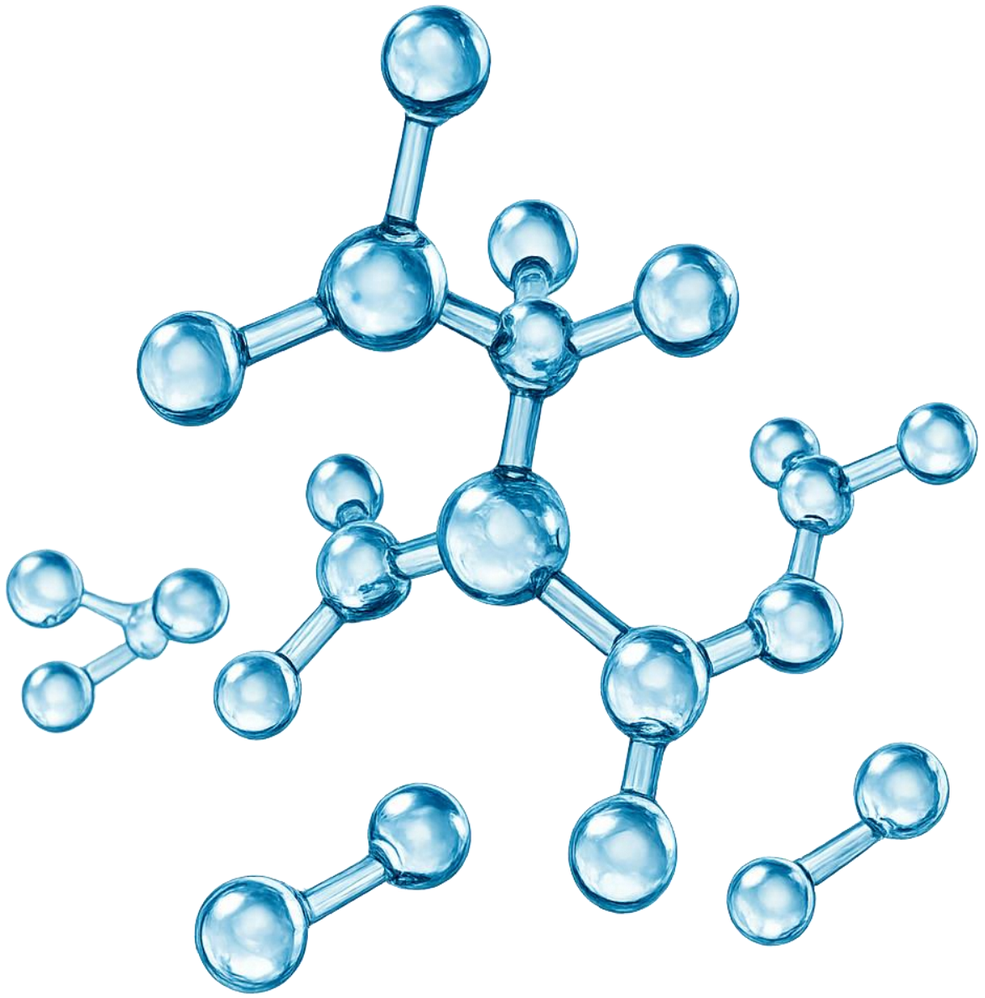


Green Hydrogen Energy Solutions

ACCADUE Alliance is driving the low-carbon transition forward with revolutionary green hydrogen technology that delivers unprecedented efficiency and cost advantages for industrial applications.
The innovative electrochemical process represents a paradigm shift in hydrogen production economics.

ACCADUE Alliance holds an **exclusive hydrogen partnership** for Asia with **ShriGreen** and **Monopolink Industries** for **Malaysia**. This partnership accelerates the deployment of a breakthrough technology, providing a fully integrated and market-ready solution for diverse industrial sectors and applications

PARTNERSHIPS

Industrial Partnership Ecosystem

ACCADUE brings together world-class technology partners to deliver comprehensive green hydrogen solutions. Our collaboration with leading **Italian industrial technology** companies ensures proven performance and global support capabilities for the hydrogen transition .

Enerblu CoGenerators

Advanced cogeneration systems and fuel cell technology integration. Enerblu's expertise in combined heat and power applications enables our energy-positive system architecture, delivering net energy output from hydrogen production and utilization.

www.enerblu.com

Idrofoglia Water

Industrial water treatment and purification systems. Idrofoglia's technology enables our flexible water input requirements, allowing use of tap water, salt water, or brackish water without expensive demineralization, reducing operational costs.

www.idrofoglia.com

GreenPower Solar

Generators multy fuel, Solar energy systems and renewable power integration. Green Power Generators provides photovoltaic solutions that can power our hydrogen production units, creating fully integrated renewable energy systems.

www.greenpowergen.com

NOOS Prognostic

NOOS develops advanced prognostic maintenance solutions for complex systems, analyzing sensor data to assess health status and estimate remaining useful life detecting early degradation signals hidden in measurement noise.

www.noos-eng.it

ACCADUE ALLIANCE

www.accadue-alliance.com

PATENT

ACCADUE H2 ALLIANCE

SHRI GREEN

MONOPOLINK INDUSTRIES

stellar HYDROGEN

Stellar Srl is an innovative startup owner of a patented technology to produce **green hydrogen**.
We have a team of engineers with decades of experience across the energy industry.

After years of research, we developed and patented a green hydrogen production process based on a completely safe chemical reaction, with (almost) no need of external energy supply.

Innovation does not come from perfect laboratories, but in the places where everything stops. When there is no gas, when there is no network, when technology remains silent. It is from there that a different energy takes shape: non-theoretical, non-intermittent, but present, continuous, concrete.

Walter Maiocchi – Founder & CEO

INNOVATION

Why This Innovation Matters

Flexibility and Modularity

Our containerized systems integrate seamlessly into diverse environments including refineries, methanol and ammonia production plants, hard-to-abate industrial facilities, multi-fuel refueling stations, and even residential areas. This plug-and-play architecture enables rapid deployment without extensive site modifications.

Multi-Application Versatility

Green hydrogen produced by our systems can be stored locally for peak demand management, used directly for combined heat and power generation, or deployed as clean fuel for mobility and heavy-duty transportation applications. This flexibility maximizes return on investment across multiple use cases.

Revolutionary Cost Economics

Hydrogen is recognized as a strategic energy carrier for decarbonization, but traditional production costs have hindered large-scale adoption. Our innovative electrochemical process is engineered to deliver highly competitive and affordable costs—achieving production at half the current market price while maintaining exceptional purity standards.

TECHNOLOGY

Revolutionary Production Technology

H2 Production 32 kg/h H2

MODULE n° 2 x 40” Container

Containerized Innovation

Our production technology represents a breakthrough in green hydrogen generation, housed in standard shipping containers for maximum portability and scalability.
The system delivers exceptional performance metrics that redefine industry standards.

99.997% Purity

Hydrogen separated from oxygen with exceptional quality

Ultra-Low Energy

Only 1.5 kWh per kg H_2 versus >60 kWh for electrolysis

24/7 Operation

Continuous production 365 days per year

Zero Emissions

No CO_2 released during the production process

PERFORMANCE

Certified Industrial Key Performance Indicators

Bureau Veritas certification guarantees the following validated performance metrics, based on extensive real-world testing at our Lonigo prototype facility. These are conservative figures proven over months of continuous operation.

H_2 Output Quality

99.997 % purity – exceeding industry standards for fuel cell and industrial applications

Annual Operation

8,736 hours/year with only 1 day scheduled for maintenance service

Production Rate

32 kg/h continuous – scalable linearly based on prototype values

System Availability

>95% uptime validated over extended real-world testing periods

Energy Efficiency

<1.5 kWh/kg H_2 versus >60 kWh/kg H_2 for conventional electrolysis

Net Energy Output

+29 kWh/kg H_2 when combined with Enerblu cogeneration (electricity + heat)

Cost Advantage

50% reduction – hydrogen delivered at half the current market production price

CERTIFICATION

Bureau Veritas Certification

Our technology has earned rigorous third-party validation from Bureau Veritas, one of the world's leading certification bodies for industrial systems. This predisposition certificate confirms that our renewable hydrogen production system meets stringent technical and safety requirements for green hydrogen generation.

The certification process involved comprehensive verification of our electrochemical process, energy sources, production methodology, and system performance. Bureau Veritas engineers conducted extensive on-site inspections at our Lonigo, Italy facility, validating the technology's compliance with international renewable hydrogen standards.

Key Certification Highlights

- Verification of renewable energy compatibility and integration
- Validation of electrochemical process using water and acid catalysts
- Confirmation of >99% hydrogen purity through certified gas chromatography
- Assessment of safety systems, valves, and pneumatic controls
- Documentation of continuous operational capability

This independent certification provides industrial buyers with confidence that our technology delivers on its performance promises and meets global standards for renewable hydrogen production systems.

Certificate Details

IT-PRO-E-006_01_AP
Chrono: H2B001/SM
Issue Date: April 20, 2022
Inspection Site: Lonigo, Italy

PREDISPOSITION CERTIFICATE OF THE REQUIREMENTS OF RENEWABLE HYDROGEN PRODUCTION SYSTEMS | IT-IND-F-006_ID_AP Rev 00 del 10/11/2022

CHRONO :	H2R001/SM
SF NUMBER :	22.SF.4688852.138
CLIENT :	STELLAR SRL
INSPECTION SITE :	Via Enrico Fermi 6, 36045, Lonigo (VI) Italia
SCOPE :	Validate the predisposition of a production system to the production of renewable hydrogen – doc ref. IT-IND-REP-01_ID rev :
OBJECT OF EVALUATION :	IMPIANTO HS-20
VISIT DATE :	28/06/2022
PERSONNEL INVOLVED:	For the cliente: Isacco Cardin

MATERIAL INSPECTED DURING THE VISIT:
- CERTIFICATE OF THE CONDITION OF THE HS-20 PLANT DEVELOPED BY STELLAR HYDROGEN- PRO AMBIENTE
- REPORT RELATING TO THE PERFORMANCE OF THE HYDROGEN PRODUCTION PLANT DEVELOPED BY STELLAR H2-PRO AMBIENTE
- P&I R1 - Model
- QUALITATIVE DESCRIPTION P&id HYDROGEN PRODUCTION PLANT
- Datasheet

#	Voce	Valutazione	Commento
1	Energy sources	NA	REQUIREMENTS FOR THE PRODUCTION OF RENEWABLE HYDROGEN The plant subject to verification can be assessed as suitable for the production of renewable hydrogen if powered by clearly described, identifiable and quantifiable renewable sources, such as: · Solar (thermal and photovoltaic) · Hydroelectric · Wind · Wavy way · Geothermal · Biomass · Or any other energy from non-fossil renewable sources Evidence of the use of electricity from renewable energy sources shall be provided for the production of green hydrogen, unless the electricity is verifiably produced and consumed on site without using the electricity grid for

Chrono: H2R001/SM Rev.0 — SF NUMBER: 22.SF.4688852.138 — Pag. 1/2
Local office of: MILANO - Viale Monza, 347 20126 Milano - Italia

PREDISPOSITION CERTIFICATE OF THE REQUIREMENTS OF RENEWABLE HYDROGEN PRODUCTION SYSTEMS | IT-IND-F-006_ID_AP Rev 00 del 10/11/2022

			general supply, invalidating certificates of origin for the purpose of generating green hydrogen. Within the EU, the origin of the electricity must be proven in accordance with the RED (proof of origin). A mix of the above technologies is possible, taking into account the different percentages.
2	Production	C	To produce hydrogen, the prototype exploits a catalysis reaction, which occurs on the surface of suitable electrodes when they come into contact with a mixture of water, hydrochloric acid (between 2 and 5%) and hydrofluoric acid (about 0.2%). In particular, to trigger the reaction it is necessary to bring the reactors into depression, with a maximum capacity of 120 liters each. Other constituent elements of the system are: • a series of valves (from V01 to V11) pneumatically operated by means of a small 25-litre compressor, designed to guarantee the correct performance of the various stages of hydrogen production; • two pumps (P1 and P2), used respectively to load the reactors (P1) and keep the reactors under vacuum by applying vacuum, as well as transport the hydrogen gas produced inside a collection tank (P2) the process uses water and acids, which through a heterogeneous catalysis produced hydrogen with a purity > 98% and oxygen in expulsion, as revealed by three consecutive measurements carried out with certified gas chromatographic instruments.
3	Placing on the market	NA	Not assessable in the preparation phase

Stamp & Signature
In: Bologna (BO)
Date: 15/11/2022

Chrono: H2R001/SM Rev.0 — SF NUMBER: 22.SF.4688852.138 — Pag. 2/2
Local office of: MILANO - Viale Monza, 347 20126 Milano - Italia

COMPARISON

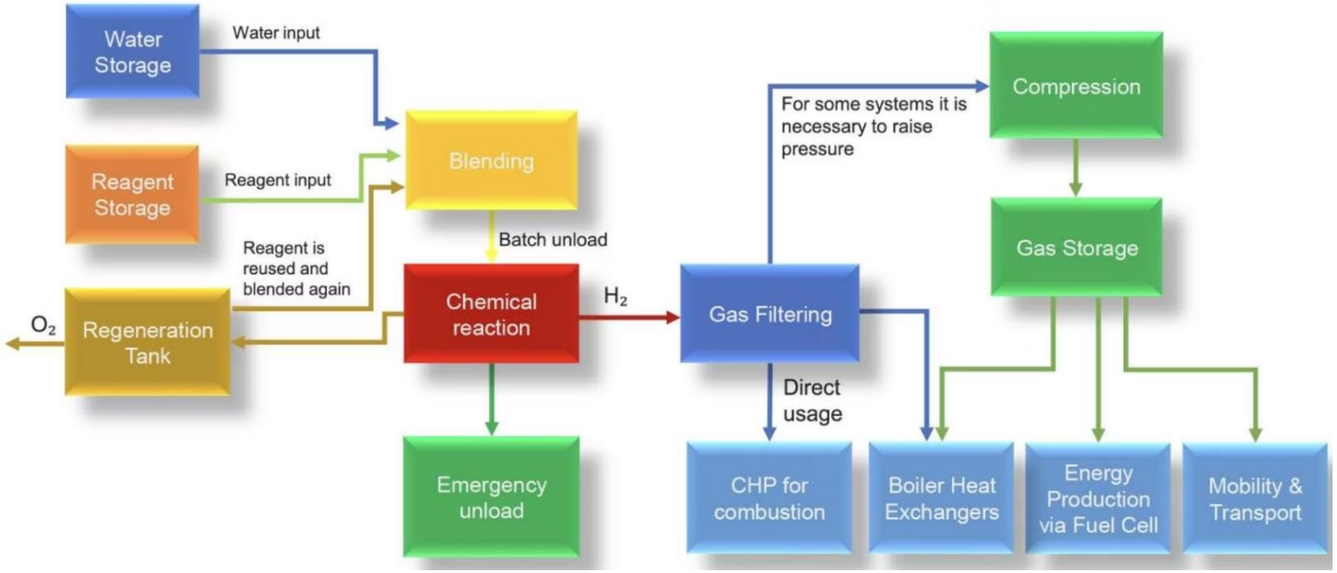
Technology Comparison: Game-Changing Advantages

Stellar **electrochemical** process delivers transformative advantages over standard electrolysis technology across every critical performance dimension. The comparison below demonstrates why industrial energy buyers are choosing our solution for their decarbonization strategies.

Technical Parameter	Stellar Electrochemical	Standard Electrolysis
Specific Electrical Efficiency	**< 1.5 kWh/kg H_2**	> 50 kWh/kg H_2
Energy Consumption Advantage	**~97.7% reduction** in energy requirements	
Hydrogen Purity	≥99%	≥99%
Operating Pressure	Atmospheric (±0.5 bar)	High pressure (15-30 bar)
Safety Profile	**Intrinsically safe** at atmospheric pressure	Requires high-pressure safety systems
Energy Self-Sufficiency	**Yes** – internal CHP system	No external energy required
Modularity and Scalability	**High** – containerized design	Limited – requires extensive infrastructure
Installation Speed	**Rapid** plug-and-play deployment	Lengthy construction and commissioning
Water Quality Requirements	Tap/salt/brackish water (300 L/h)	Demineralized water only
Operational Costs	**Significantly reduced** OPEX	Higher ongoing costs
Production Cost	**< 50% of lowest market price**	>US$ 3-6/kg

PROCESS

Production Process Flow



Integrated System Architecture

Our production process begins with water storage and reagent storage feeding into a precision blending system. The blended mixture undergoes our proprietary electrochemical reaction, which can be batch unloaded for reagent regeneration or produce high-purity H_2 gas.

The hydrogen output passes through advanced gas filtering before optional compression for storage applications. From storage, the hydrogen can be deployed across multiple end-use applications:

- **Combined Heat and Power (CHP)** for direct combustion in engines or turbines
- **Boiler heat exchangers** for industrial thermal processes
- **Fuel cell energy production** for clean electricity generation
- **Mobility and transport** for vehicle and fleet refueling

A key innovation is our regeneration tank system, which captures oxygen byproduct and enables reagent reuse, significantly reducing operational costs and environmental impact. The closed-loop reagent system minimizes chemical consumption while maintaining continuous 24/7 production capability.

E-APPLICATION

Cogeneration Application: H_2 → Energy Positive System

An independent and scalable system produces low-cost green hydrogen while simultaneously generating electric and thermal energy directly on site. This creates an **energy-positive solution that transforms hydrogen production from an energy consumer into a net energy producer**.

INFRASTRUCTURE

Plant Layout H_2 and Energy Configuration

Container Specifications

Our modular plant design delivers a production capacity of **360 Nm^3/h**, sufficient to operate a combined heat and power (CHP) system using either internal combustion engines or fuel cells.

This configuration generates approximately:

- 440 kW/h electrical energy
- 440 kW/h thermal energy

Flexible Water Integration: External water storage becomes unnecessary when a suitable municipal or industrial water source is readily available on-site, reducing infrastructure requirements and deployment costs.

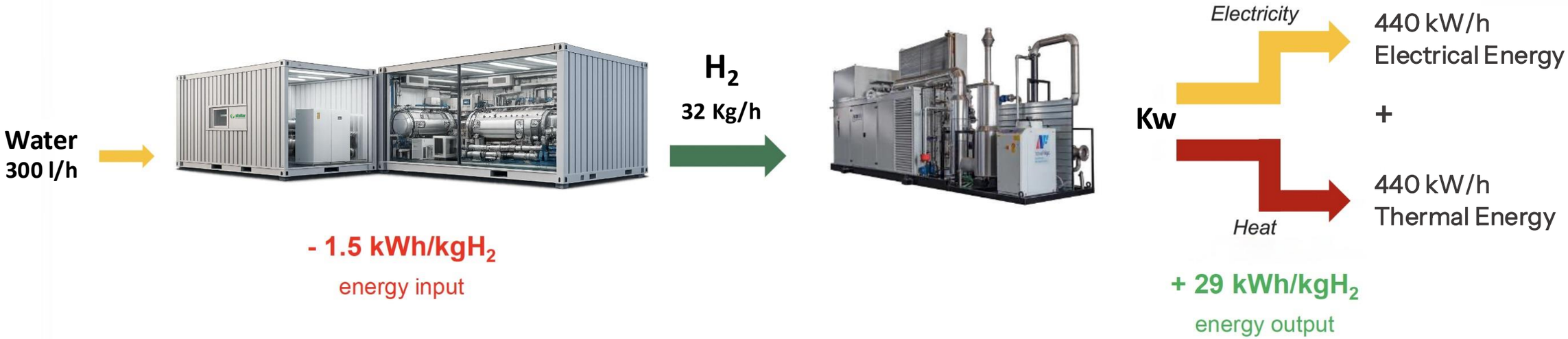
The containerized architecture enables rapid deployment, minimal site preparation, and straightforward integration with existing industrial facilities or energy infrastructure.

H_2 + ENERGY

MODULE n° 2 x 40” Container + n° 1 x 20” Co-Generator

ENERGY ECONOMICS

Revolutionary Energy Balance



1.5	+29	20x
kWh Input per kg H_2	kWh Net Output per kg H_2	Energy Return Ratio
Minimal electrical energy required for hydrogen production	Combined electrical and thermal energy generated through cogeneration	For every unit of energy invested, system produces 20 units of usable energy

This remarkable energy balance means that for every 1.5 kWh of electricity consumed to produce one kilogram of hydrogen, the system generates 29 kWh of combined electrical and thermal energy when that hydrogen is used in our integrated cogeneration system. This represents a net energy gain that fundamentally transforms the economics of green hydrogen production and utilization.

Performance Disclaimer: Performance figures and system characteristics are based on design parameters, internal testing, and pilot-scale data. Actual results may vary depending on site conditions, operating configuration, regulatory requirements, and system integration. Energy input and output values are indicative and provided for reference purposes only. Commercial performance is subject to further validation during full-scale deployment.

ECONOMIC CASE

Cost Competitiveness Analysis

Breaking the Cost Barrier

The primary obstacle to widespread green hydrogen adoption has been production cost. Our technology achieves a breakthrough: **delivering hydrogen at < 50% of current lowest market prices** while maintaining exceptional purity and reliability.

Cost Drivers and Advantages

- **Ultra-Low Energy Consumption:** At < 1.5 kWh per kg H_2, our energy costs are 97% lower than electrolysis-based production
- **Reduced Infrastructure:** Atmospheric pressure operation eliminates expensive compression equipment and high-pressure safety systems
- **Minimal Water Processing:** Accepts tap water, salt water, or brackish water without demineralization, reducing operational expenses
- **Reagent Regeneration:** Closed-loop system reuses chemical reagents, minimizing consumable costs
- **High Availability:** > 95% uptime ensures maximum production utilization and revenue generation
- **Fast Deployment:** Containerized design reduces installation time and associated capital costs

Total Cost of Ownership

When evaluating green hydrogen solutions, industrial buyers must consider total lifecycle costs including capital expenditure, operational expenses, maintenance, and energy consumption.

Capital Expenditure

Modular containerized design reduces upfront infrastructure investment compared to traditional electrolysis plants

Energy Costs

97% reduction in electrical consumption translates directly to operational savings throughout system lifetime

Maintenance

Atmospheric pressure operation and proven technology reduce maintenance complexity and frequency

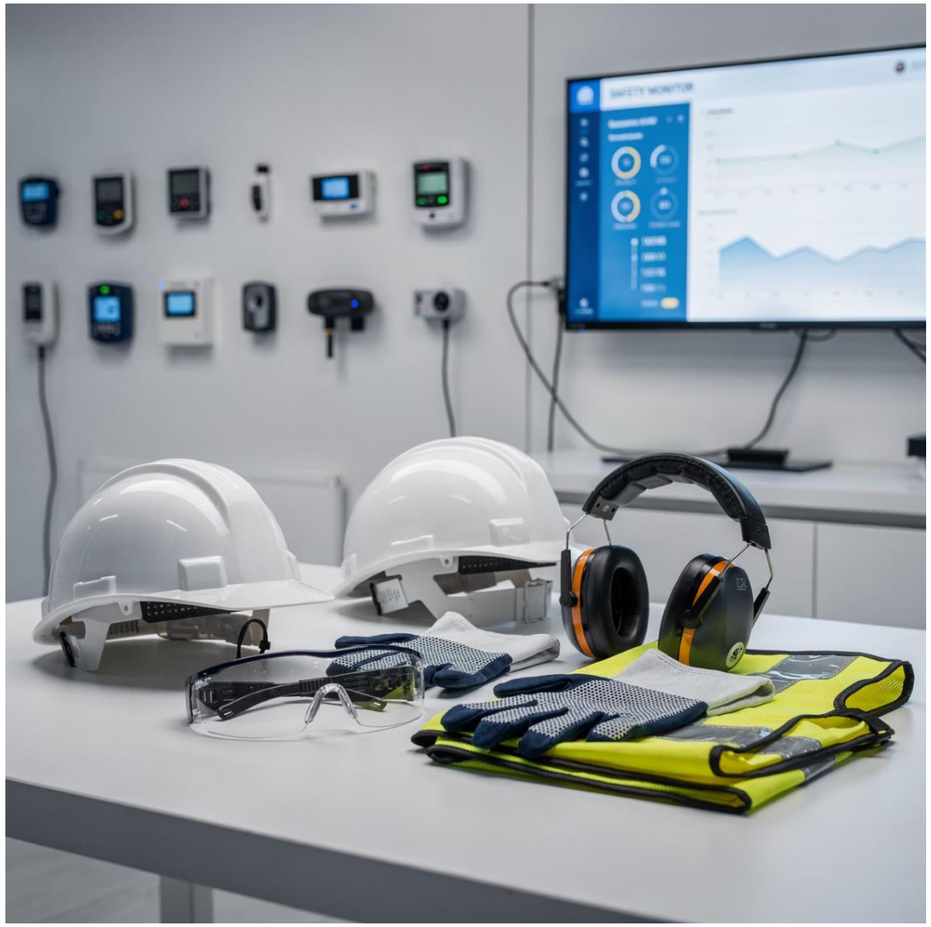
Consumables

Reagent regeneration system and flexible water requirements minimize ongoing supply chain costs

The combination of low initial investment, minimal energy consumption, and reduced operational costs delivers a compelling return on investment that makes green hydrogen economically viable today, not decades in the future.

SAFETY

Safety Profile and Risk Mitigation



Intrinsically Safe Design

Safety is paramount in hydrogen production and handling. Our electrochemical process operates at atmospheric pressure (±0.5 bar), fundamentally reducing risk compared to high-pressure electrolysis systems that operate at 15-30 bar.

Key Safety Features

- **Low Pressure Operation:** Atmospheric pressure eliminates high-pressure vessel risks and reduces regulatory compliance requirements
- **Pneumatic Control Systems:** Fail-safe valve actuation ensures safe shutdown in any fault condition
- **Continuous Monitoring:** Integrated sensors track system parameters and hydrogen purity in real-time
- **Containerized Isolation:** Production equipment housed in steel shipping containers provides physical protection and containment
- **Separation at Source:** Hydrogen and oxygen are separated during production, eliminating explosive gas mixture risks
- **Emergency Systems:** Multiple redundant safety systems including automatic shutdown protocols

The systems are designed to meet international safety standards for industrial hydrogen production and can be adapted to comply with local regulatory requirements in any jurisdiction.

APPLICATIONS

Target Market Applications

Refineries and Petrochemical Plants

Replace grey hydrogen with clean green hydrogen for hydrocracking, hydrotreating, and desulfurization processes. Our low-cost production economics make renewable hydrogen competitive with fossil-derived alternatives, enabling refineries to dramatically reduce their carbon footprint while maintaining operational efficiency and profitability.

Ammonia and Methanol Production

Provide feedstock hydrogen for sustainable ammonia and methanol synthesis plants. With energy consumption 97% lower than electrolysis, our technology enables cost-competitive green ammonia for fertilizer production and methanol for chemical manufacturing, supporting the decarbonization of agricultural and chemical supply chains.

Hard-to-Abate Industries

Deliver hydrogen for direct reduced iron (DRI) production in steel manufacturing, high-temperature industrial heating, and other difficult-to-electrify industrial processes. Our containerized systems can be deployed directly at production facilities, eliminating transportation costs and enabling distributed green hydrogen generation.

Multi-Fuel Refueling Stations

Enable on-site hydrogen production for vehicle refueling infrastructure serving fuel cell cars, trucks, and buses. Eliminate the need for hydrogen transportation and storage logistics while ensuring supply reliability. Our systems can scale from single-station deployments to regional refueling networks.

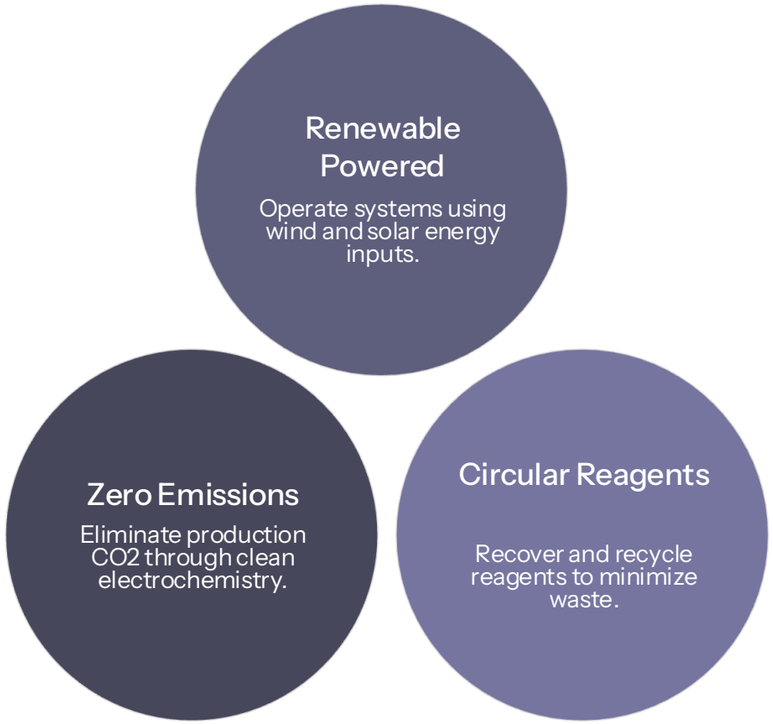
ENVIRONMENTAL IMPACT

Sustainability and Carbon Reduction

Zero Production Emissions

The electrochemical process produces absolutely zero CO_2 emissions during hydrogen generation.
When powered by renewable electricity from solar, wind, or hydroelectric sources, the entire production chain achieves carbon neutrality.

For industrial facilities operating in regions with carbon pricing or emissions trading schemes, this zero-emission production translates directly to reduced compliance costs and avoided carbon taxes.



Resource Efficiency

Beyond carbon emissions, our technology demonstrates superior resource efficiency across multiple dimensions:

- Accepts brackish or salt water, reducing pressure on freshwater resources
- Reagent regeneration minimizes chemical consumption and waste generation
- Oxygen byproduct can be captured for industrial applications
- Compact footprint reduces land use requirements
- Modular design enables capacity scaling without facility expansion

These efficiency advantages compound over the system lifetime, delivering environmental benefits that extend far beyond simple carbon accounting.

Our green hydrogen technology delivers measurable environmental benefits that support corporate sustainability goals and regulatory compliance.

IMPLEMENTATION

Deployment Process and Timeline

1

Phase 1: Site Assessment

Technical evaluation of facility infrastructure, electrical capacity, water availability, hydrogen demand profile, and integration requirements. Engineers work with your team to optimize system configuration.

2

Phase 2: Engineering Design

Detailed engineering drawings, equipment specifications, and integration plans developed. Regulatory permitting initiated in parallel to minimize timeline. Final system sizing and configuration confirmed.

3

Phase 3: Manufacturing

Production of containerized system modules, quality assurance testing, and pre-shipment verification. Systems undergo rigorous testing to ensure performance specifications before delivery.

4

Phase 4: Installation

On-site delivery, positioning, and connection of containerized units. Electrical, water, and hydrogen distribution integration completed. Minimal site preparation required.

5

Phase 5: Commissioning

System startup, performance validation, operator training, and handover. Comprehensive testing ensures all performance guarantees are met before commercial operation begins.

SCALABILITY

Modular Scalability and Expansion

Start Small, Scale Fast

The containerized architecture enables phased capacity expansion aligned with your hydrogen demand growth. Start with a single production unit and add modules as requirements increase, without disrupting ongoing operations.

Single Unit

32 kg/h H_2 production
768 kg/day
~ 279 tonnes/year

Five Units

160 kg/h H_2 production
3.840 kg/day
~1.400 tonnes/year

Ten Units

320 kg/h H_2 production
7.680 kg/day
~ 2.800 tonnes/year

Custom Scale

Unlimited expansion potential
Configure to exact needs
Add capacity on demand

Scalability Advantages

- **Linear Performance Scaling:** Each additional container adds predictable production capacity
- **Distributed Generation:** Deploy multiple units across different facility locations
- **Demand Matching:** Right-size capacity to avoid overbuilding and stranded assets
- **Incremental Investment:** Spread capital expenditure over time as business case is validated
- **Redundancy:** Multiple units provide backup capacity and eliminate single points of failure

This modular approach reduces financial risk while providing flexibility to adapt to changing market conditions, regulatory requirements, or business priorities.

VALUE PROPOSITION

Why Choose Stellar H_2

1. **Proven Technology**
   Bureau Veritas certified system with validated performance data from months of continuous operation at our Italian prototype facility

2. **Economic Advantage**
   Hydrogen production at 50% of current market price with 97% lower energy consumption than electrolysis alternatives

3. **Rapid Deployment**
   Containerized plug-and-play systems enable 18-week deployment timelines from contract to commercial operation

4. **Operational Flexibility**
   24/7 continuous production, >95% availability, and multi-application versatility for diverse industrial requirements

5. **Safety Profile**
   Intrinsically safe atmospheric pressure operation eliminates high-pressure risks and simplifies regulatory compliance

6. **Scalable Growth**
   Modular architecture enables incremental capacity expansion aligned with demand growth and investment capability

7. **Expert Support**
   Global partnership network and Malaysian operations team provide local engineering, installation, and ongoing service support

Let's Build a Healthier Future Together

Green hydrogen represents the cornerstone of industrial decarbonization and the global transition to sustainable energy systems.
Stellar revolutionary electrochemical technology makes this transition economically viable today.

With production costs at half the market price, energy consumption 97% lower than electrolysis, and proven performance validated by Bureau Veritas certification, our solution delivers the cost competitiveness and reliability that industrial energy buyers require.

The future of clean energy is here. Contact us to explore how our green hydrogen solutions can power your sustainability transformation while delivering compelling economic returns.

NEXT STEPS

Partner With Us

Begin Your Green Hydrogen Journey

ACCADUE with Monopolink is ready to help your organization achieve its decarbonization goals with cost-effective green hydrogen solutions.
Our team of experts will work with you to understand your specific requirements and design an optimized system configuration.

We invite industrial energy buyers, project developers, and corporate sustainability officers to schedule a consultation with our team.
We'll discuss your hydrogen requirements, review site considerations, and outline a potential deployment roadmap tailored to your facility and objectives.

What to Expect

- Confidential discussion of your energy and decarbonization requirements
- Technical feasibility assessment for your specific application
- Preliminary system sizing and performance estimates
- Economic analysis including production costs and return on investment
- Timeline and deployment planning
- Answers to technical questions from our engineering team

ACCADUE ALLIANCE H_2

SHRI GREEN

MONOPOLINK INDUSTRIES

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