ZERO CARBON

REFIRE

The whole is only
ever truly greater
than the sum of
its parts when
the result serves
the betterment of
mankind and
the planet

- Anonymous

CONTENTS

"Our vision is to commercialise clean hydrogen & fuel cell technologies through global partnerships that deliver value"

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REFIRE

REFIRE STORY

A SUSTAINABLE FUTURE, TODAY

REFIRE Group aims to contribute meaningfully to the transition to a clean energy mix that is taking place across the globe right now. We believe that to do this requires participants with long term vision, global partnerships, and a stakeholder mentality.

Together, we want to help deliver viable and commercially resilient hydrogen ecosystems to the world and demonstrate that at-scale hydrogen energy and power products are real technologies that are available today.

PURPOSE

SO THE WORLD CAN BREATHE EASY

REFIRE Technology (REFIRE) was founded in 2015 and today the company is a leading international supplier of hydrogen fuel cell technologies. Named after the ideology of re-inventing fire, our core purpose is to transform the way people use energy across all walks of everyday life.

We believe in a future where zero-emission hydrogen-electric energy and power will help to address the most urgent pollution and climate challenges, so the world can breathe easy.

To achieve this, we are accelerating mass adoption of hydrogen as an energy carrier, and hydrogen fuel cell products and services supported by sustainable ecosystems of value creation for both customers and users.

We aim to further strengthen our position at the forefront of the burgeoning global hydrogen-electric industry as a world-class hydrogen technology enterprise.

We cannot achieve these goals alone. So our approach is to invite partners along for the ride, from policymakers to OEMs and end users, because the clean energy revolution will be successful when we work together.







CULTURE

DANCE LIKE A BUTTERFLY, *SING* LIKE A BEE

REFIRE is a technology and engineering company with the agility and character of a mature startup. Over the past eight years, we have attracted some of the brightest minds in new energy, automotive engineering, power electronics, stack science and manufacturing. Today, the REFIRE group of companies is over 650-strong including more than 250 engineers.

INNOVATION AT OUR CORE

Asia is home to the world's largest share of commercial FCEVs (fuel cell-electric vehicle), and the 5,000+ fuel cell vehicles we've deployed in the region puts REFIRE in a leading position. The cumulative mileage of these vehicles already exceeds 160 million kilometres, representing a kerbside saving of around 90,000 tonnes of atmospheric carbon emissions[1].

What got us here, and what continues to drive us, is a blend of continual innovation and grit, together with a collaborative spirit that we share with all our customers and collaborators.

Our corporate culture emanates from the central vision of the company which is to reveal and catalyse clean and sustainable energy usage paradigms for the benefit of society and the earth.

[1] To Q2 2023

STRATEGY

A SECURE AND INCLUSIVE ENERGY LANDSCAPE

REFIRE was founded with the conviction that hydrogen, as an energy carrier, would be viable for clean delivery, effective storage, and use case plurality.

With over 140 OEM-commissioned fuel cell powertrain prototypes under our belt, that conviction aligns with real world requirements that will make hydrogen-electric power a feature of daily life - one in which energy is distributed more fairly, is less susceptible to supply shock, and is not wasted when demand falls.

Together with mature fuel cell technology, hydrogen is set to provide a more secure energy landscape.

UPSTREAM & DOWNSTREAM HYDROGEN ECOSYSTEMS

REFIRE is positioned in the centre of the hydrogen value chain, embracing both upstream E2H energy (electricity to hydrogen) and downstream H2E power (hydrogen to electricity) markets.

For the hydrogen energy transition to move forward, it is essential that both hydrogen supply as well as off-take grow at a synchronous rate.

Thus, our strategy is to deliver hydrogen technology ecosystems that enable clean E2H hydrogen production, as well as H2E zero emissions hydrogen-electric end user applications.



REFIRE is a trusted participant in the hydrogen value chain. We not only contribute through our own products and services by also by helping to cluster industry and resources, and by catalysing market opportunities.

We also work with industry associations, think-tanks, and policymakers, to encourage the growth of hydrogen economies that will support clean and sustainable mobility and power needs.

YOUR TRUSTED PARTNER

We set out to get things moving as quickly as possible, working with existing mobility and power infrastructure, and tackling the most polluting sectors first.

Our aim is to help customers bring hydrogen production and fuel cell-powered projects to fruition rapidly. From turnkey vehicle retrofit solutions to OEM production-ready blueprints, we are ready to act.

Our core components, including stacks, MEA (Membrane Electrode Assembly), and power electronics are also helping to satisfy customer needs at various stages of their own product development cycles.

Flexibility on top of reliability, durability, and safety, is helping us to solve more customer challenges and meet more of their immediate needs.

REFIRE ASTRAWORKS MANUFACTURING INNOVATION CENTRE, CHANGSHU



VOLUME DELIVERY

Broad application at scale is essential. Anything less will fall short of the contribution required to effectively mitigate atmospheric pollution and climate disruption.

Quality as scale requires a level of consistency in production that has been a challenge for many hydrogen technology providers. To address this, we have concentrated our efforts since day one, on not only designing world-class products but solving the downstream manufacturing challenges ahead of time.

The result of this dual approach is our ASTRAWORKS manufacturing innovation and production system. TüV certified, this semi-automated state-of-the-art facility will be iterated and duplicated where industry clustering and market forces demand it.

STANDARD STETTING

REFIRE is actively involved with global standards bodies to develop testing frameworks and benchmarks on a per-market basis to deliver location-specific solutions.

We are proud to have partnered with top global benchmarking, testing institutions to validate and certify system and stack performance:

- TüV Rheinland, Germany
- TüV Nord, Germany
- RDW, Netherlands
- GB (Guobiao) Standards, China

REFIRE is also fully certified for its quality management systems implementation through ISO and IATF standards:

- ISO9001:2015
- ISO14001:2015
- ISO45001:2018
- ISO26262:2018
- IATF16949:2016













KUKA

THE HYDROGEN OPPORTUNITY

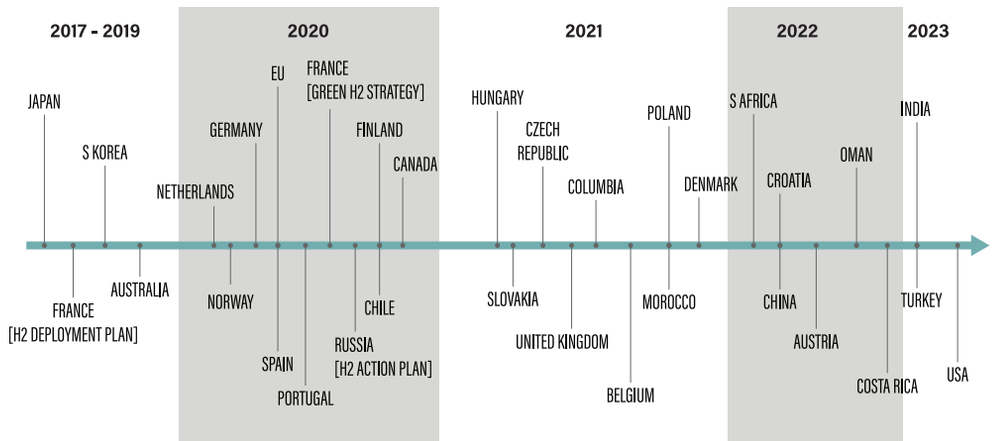
HYDROGEN: A QUANTUM SHIFT

The shift towards decarbonisation through policy, investment, regulation, and consumer demand, is driving the new hydrogen economy. Hydrogen is now globally recognised as a clean energy carrier with over 30 countries having released roadmaps for its widespread use. This presents an historical opportunity to re-imagine the world we live in.

Momentum is building along the entire value chain, bringing cost reductions to hydrogen production, distribution, and end user applications.

The net benefits of this are already catalysing technological innovation, projects, value, and ultimately clean air. REFIRE is a hydrogen value chain enabler, engaging proactively with customers and collaborators, stakeholders, policymakers, industry advocates and, importantly, the public.

HYDROGEN STRATEGY ADOPTION TIMELINE[1]



LOCALISED ECOSYSTEMS

Let us be your facilitator of change, to help you benefit from the momentous opportunity to decarbonise and to re-invent the collective energy landscape.

We can support your growth through the strategic interlocking of technology, market forces, and policy.

Data source: World Energy Council - June 2023



ENTERPRISE SCALE KOL

With every step forward, the hydrogen economy is exploring uncharted territory. At this relatively early stage, the demand for authentic, balanced, and experienced industry voices to guide growth could not be more important.

REFIRE is sought not only for its class-leading products and services but also as a consultative voice across connected industries.



READY TO GO

We've built over 150 OEM-commissioned, turnkey hydrogen and fuel cell prototypes enabling fast ramp-up and deployment of energy and power projects at scale.

From electrolysers, EV superchargers and megawatt stationary power units, to drones, cars, trucks, buses, airport and port tow-trucks, and powered machines, we have the right solutions for your application engineering challenge.

Our unsurpassed catalogue of proven end use applications is the foundation of our expertise and enables us to help our customers move more rapidly towards meeting their decarbonisation targets.


Certificate

Standard IATF 16949:2016

TÜVRheinland®



OUR EDGE

PEOPLE
REFIRE employs some of the sharpest minds in the industry. We are also actively pre-empting market growth through headcount preparedness and continuous skillset evolution.

ENGINEERING CULTURE
Engineering is in our blood. The company thrives on a healthy mix of innovation-driven and process-driven momentum. This gives us the confidence to tackle increasingly large-scale and mission-critical projects.

BEST IN CLASS PRODUCTS & SERVICES
Our history of world-firsts and standard-setting has established the company in an industry leadership role.

ECOSYSTEM OF PARTNERSHIPS
We continue to build relationships with the best global and local partners so that we can deliver on our promises.

DATA-DRIVEN APPROACH
Data is the fuel for our innovation and corporate development. It allows us to continuously iterate and to offer our customers ever more refined products and services, as well as deeper insights into operations.




REFIRE
MOVE. BREATHE.

REFIRE GROUP FOOTPRINT



ENTERPRISE SCALE

REFIRE is actively expanding its footprint internationally in regions where policy is driving industry strategy and where commercialisation can take place with fewer obstacles.

We would like to help your region develop optimised policy choices, drive strategy, and build market opportunities for the benefit of the planet.



1. BEIJING
FCS[1] Test & Certification

2. CHANGSHU
FCS Factory

3. SHANGHAI
R&D | Validation | Prototyping

4. FOSHAN
FCS Component Production

5. HONG KONG
International Sales

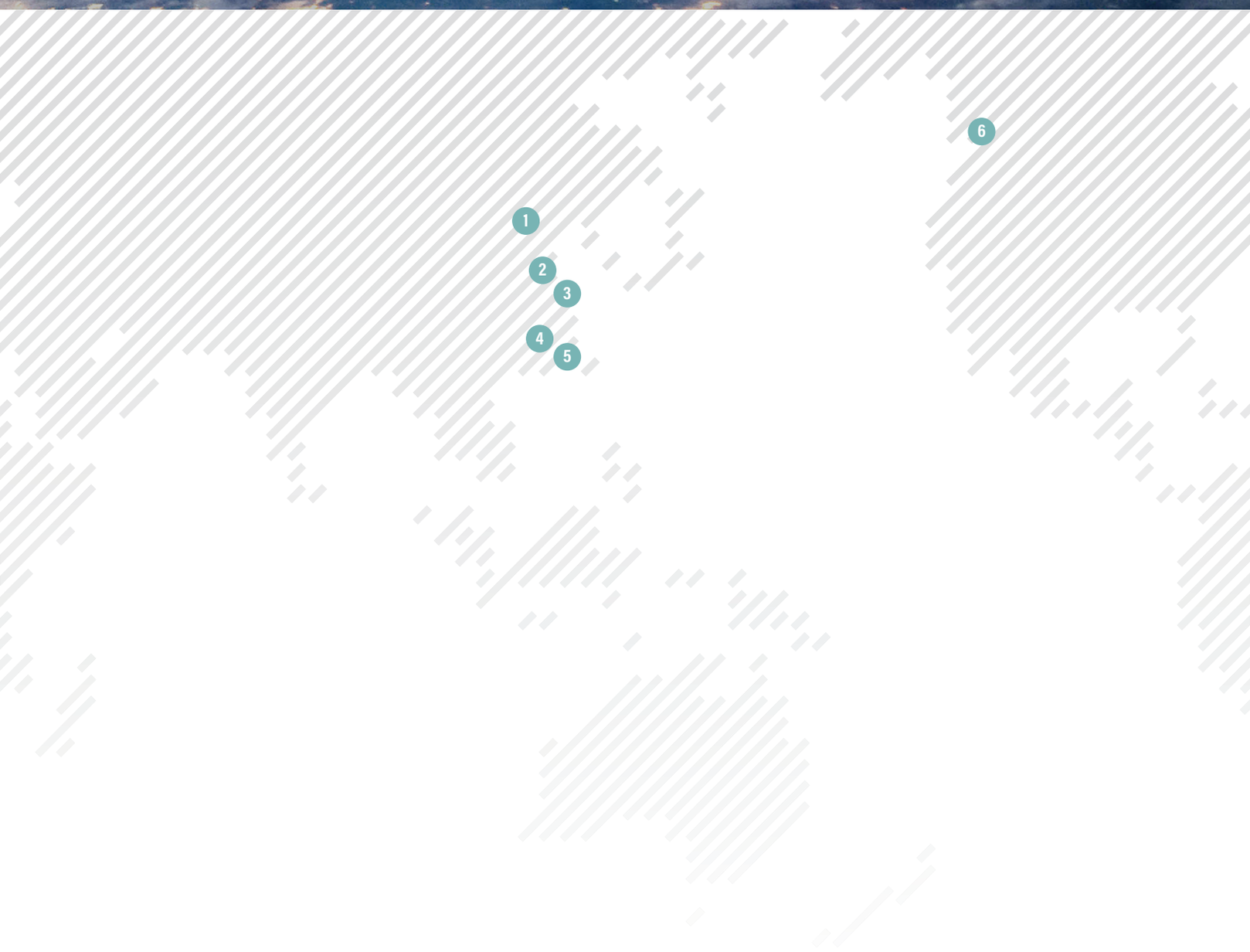
6. VANCOUVER
Stack R&D Centre

7. STUTTGART
EU Engineering Centre

8. HAMBURG
International Sales

[1] FCS (Fuel Cell System)




6
1
2
3
4
5

MOVE. BREATHE. EASY

5,500+ POWERTRAINS DEPLOYED[1]
7,500+ SYSTEMS DELIVERED
170,000,000+ KILOMETRES DRIVEN[2]
550MW+ POWER CAPACITY DEPLOYED[3]
100,000+ TONNES CO_2 SAVED[4]

1 With REFIRE systems & products
2 To Dec 31, 2023
3 Estimate based on system power rating, to Dec 31, 2023
4 Roadside carbon emissions, to Dec 31, 2023





PRODUCTS & SERVICES

THE H2 VALUE CHAIN

REFIRE is active in upstream markets, transforming electrical energy into hydrogen (E2H) and in downstream markets, transforming hydrogen back into electrical power (H2E).

UPSTREAM E2H - HYDROGEN ENERGY EQUIPMENT

REFIRE builds customised water electrolysis ecosystems that are able to cater to fluctuating grid supply, as well as both stable and intermittent renewable electricity supply.

Our Polymer Electrolyte Membrane (PEM) electrolyser technology allows us to serve customers who require rapid power switching, while our Alkaline (ALK) electrolyser technology is suited to contstant supply of electricity and hydrogen output.

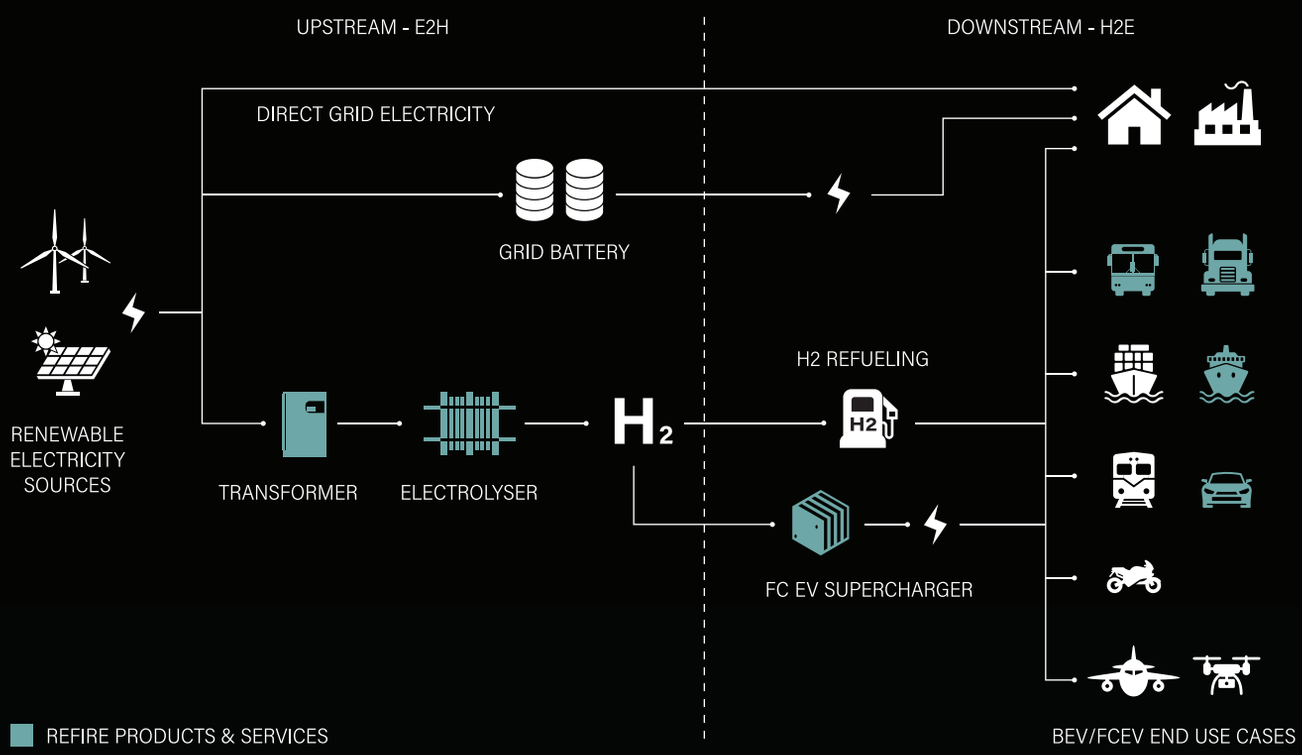
DOWNSTREAM H2E - FUEL CELL POWER SYSTEMS

REFIRE designs and manufactures Proton Exchange Membrane (PEM) Fuel Cell (FC) systems and their core components.

A variety of end use cases can be FC-powered, from vehicles to EV superchargers and stationary power supply.

We also offer full application engineering support for mobilty and power applications, including R&D, design, verification, validation, certification, and at-scale production.




UPSTREAM - E2H
DOWNSTREAM - H2E
DIRECT GRID ELECTRICITY
GRID BATTERY
RENEWABLE ELECTRICITY SOURCES
TRANSFORMER
ELECTROLYSER
H2
H2 REFUELING
FC EV SUPERCHARGER
REFIRE PRODUCTS & SERVICES
BEV/FCEV END USE CASES

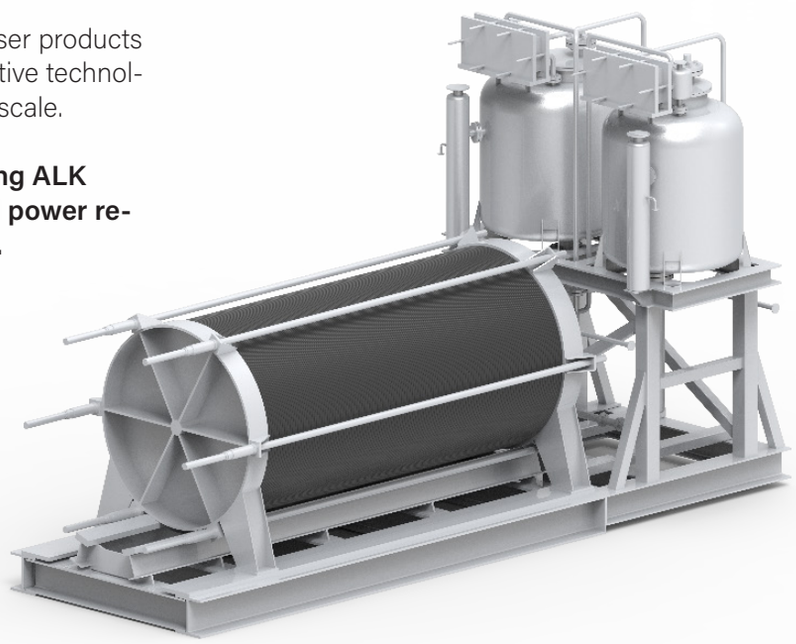


ALK ELECTROLYSERS

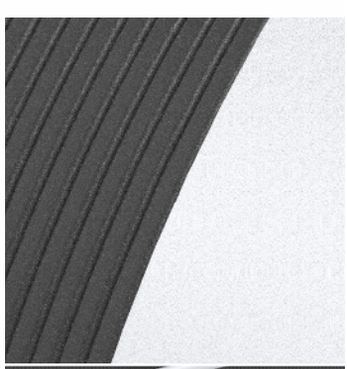
UPSTREAM E2H - HYDROGEN ENERGY EQUIPMENT

REFIRE megawatt scale alkali electrolyser products leverage robust, reliable, and cost-effective technology to provide hydrogen production at scale.

Our mature, proven, and class-leading ALK electrode technology offers reduced power required per kg of hydrogen produced.



ALK EMW+





DESCRIPTION

Modular MW Alkaline Electrolyser
Heavy-Duty Applications

FEATURES

High current density
Low energy consumption
High production efficiency
Low cost per unit H_2 production
Power supply unit available

TECHNICAL SPECIFICATIONS

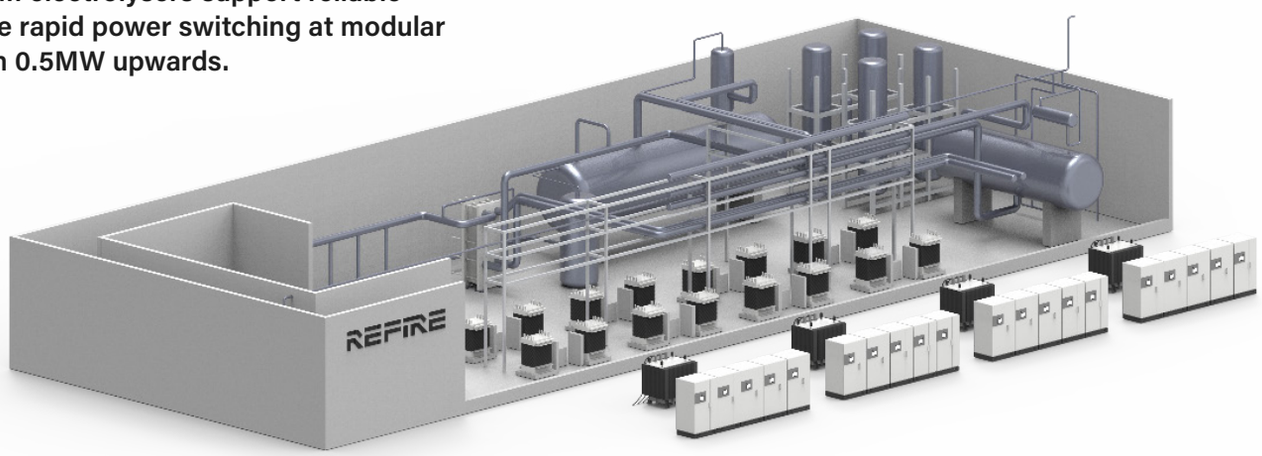
DC power consumption (kwh/Nm^3): 4.2
Current density (A/m^2) @1.8V@80°C: 6500
Specific surface area (m^2/g): 480
Corrosion resistance(mm/a): 0.008
Anode design life (years): 20 -30
Porosity (%): 50

PEM ELECTROLYSERS

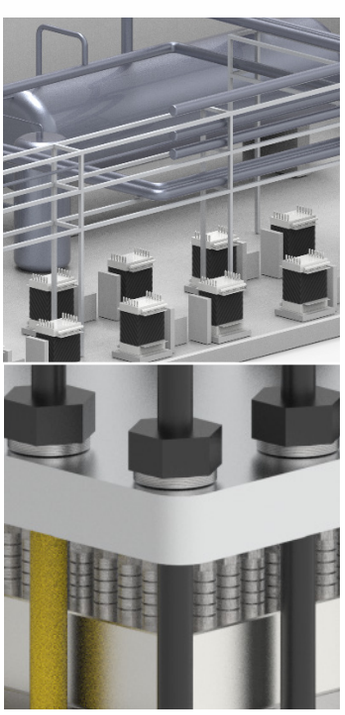
UPSTREAM E2H - HYDROGEN ENERGY EQUIPMENT

Intermittent renewable energy sources, such as wind power, coupled with flexible grid demand, make agile hydrogen production a necessity.

REFIRE PEM electrolysers support reliable and durable rapid power switching at modular scales from 0.5MW upwards.



PEM EMW+



DESCRIPTION

Modular MW PEM Electrolyser System
Light/Medium-Duty Applications

FEATURES

Rapid start-stop
High production efficiency
Power supply unit available

TECHNICAL SPECIFICATIONS

Rated power net (kW): 500kW & upwards
Production capacity (Nm^3/h): 100 & upwards
Power consumption (kwh/Nm^3): 4.5 - 4.7
Operating temp. range. (°C): -30 - 45
Startup time from cold (s): 300
H_2 outlet pressure range (Mpa): 0 - 4
H_2 production efficiency (%): 80
Load operating range (%): 5 - 150
Max altitude operation (m): 5500

PRODUCTS & SERVICES

DOWNSTREAM H2E - FUEL CELL POWER PRODUCTS

PRISMA FUEL CELL SYSTEM SERIES

BEST IN CLASS

REFIRE produces the PRISMA line of fuel cell systems with benchmark models that are offered in multiple configurations. Each base system has extraordinary design flexibility to cater to very specific end use cases.

Launched in 2020, PRISMA is an industry-leading series of integrated fuel cell systems capable of powering everything from compact commercial vehicles up to long haul trucks.

USE CASE PLURALITY

PRISMA is ideally suited as a turnkey solution in the following sectors:

- MASS TRANSIT
- LOGISTICS
- UTILITY VEHICLES

Additional bespoke solutions based around PRISMA are available for:

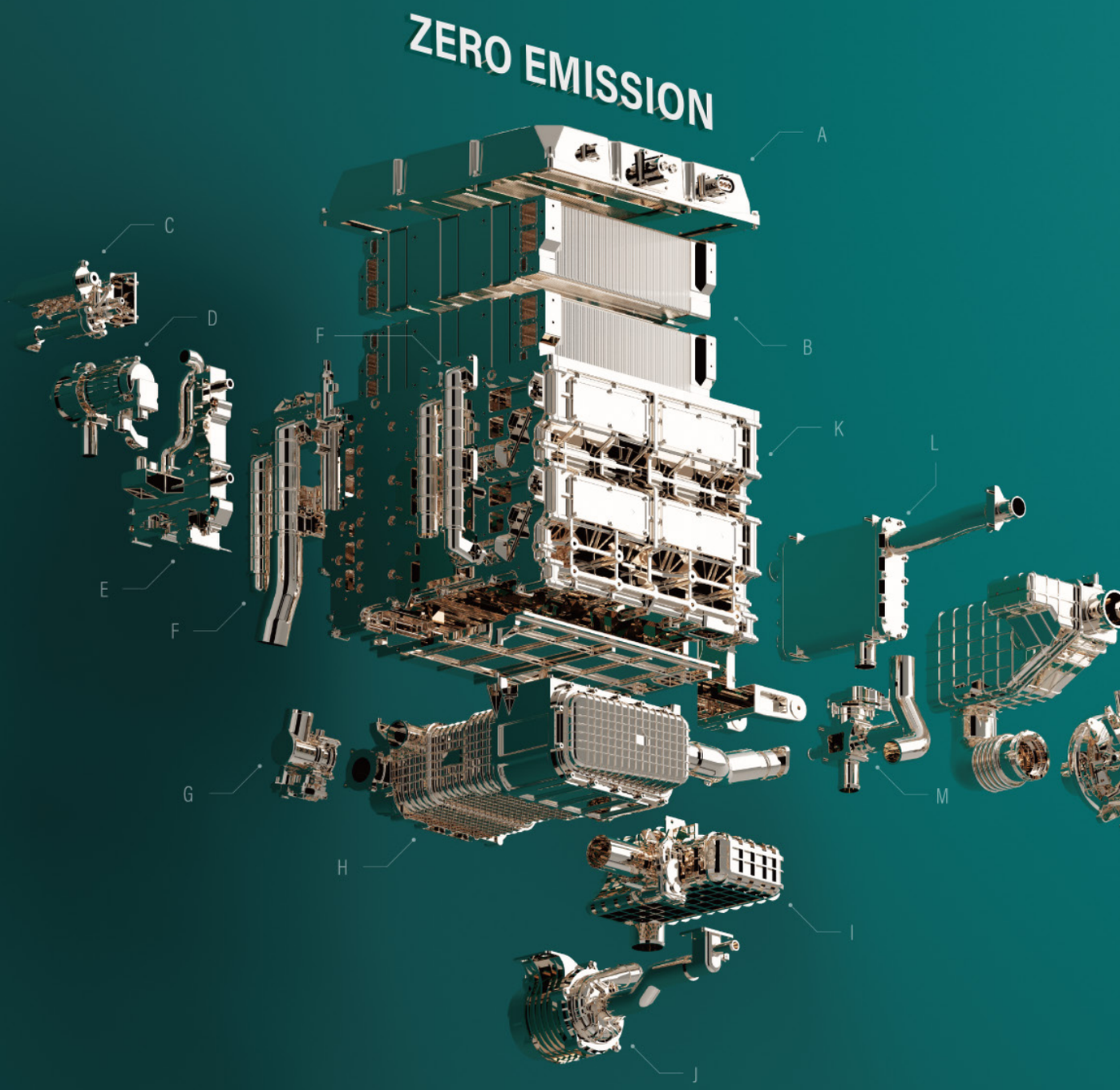
- AUTONOMOUS POWER
- DECENTRALISED GRID POWER

PRISMA BENCHMARK MODELS

PRISMA VI+
Light to medium-duty FCS that brings zero emissions to city logistics, mass transit, and urban services fleets.

PRISMA XII+
Heavy-duty FCS with improved torque, bringing higher top speeds and drive performance to freeway long-haul freight and intercity mass transit.


PRISMA®
Fuel Cell System Series



PRISMA®
Fuel Cell System Series

THE GOLD STANDARD FOR FUEL CELL-ELECTRIC POWER

A DCDC with ACP & HRB controller
B Stack assembly
C Hydrogen jet + ejection assembly
D Hydrogen recirculation blower
E Water knockout
F Intake manifold assembly
G Throttle body
H HUM + intercooler
I Exhaust muffler
J Coolant pump
K Stack enclosure
L Heat exchanger
M Coolant thermostat
N Intake manifold
O Air compressor
P Deioniser

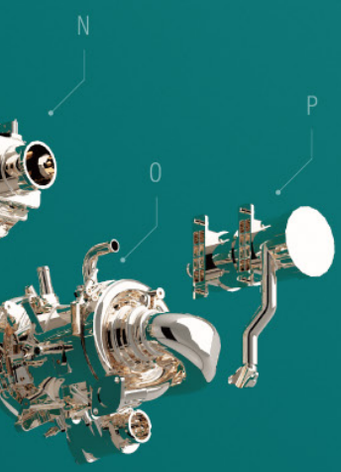
DURABILITY

REFIRE fuel cell systems are designed for rigorous commercial vehicle operating conditions. Depending on the exact model and user profile, our systems have durability design targets between 12,000 and 25,000 hours with voltage reduction of less than 10%.

FUEL ECONOMY

TCO (Total Cost of Ownership) is a key matrix for all commercial vehicle owners and operators.

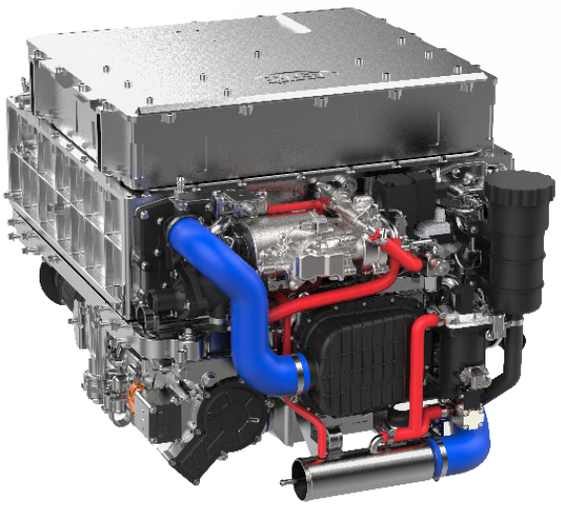
REFIRE's fuel cell systems deliver one of the best fuel economies in the industry because we understand the importance of minimising operating costs for our customers through long term fuel savings.



SUSTAINABILITY

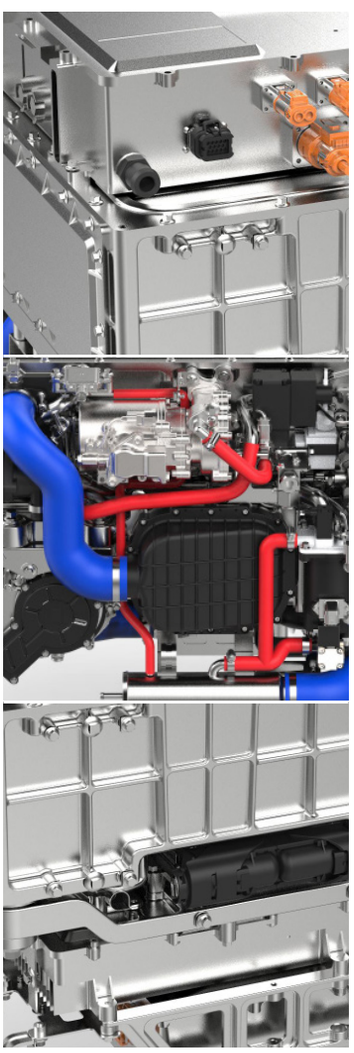
Once a fuel cell system can no longer be refurbished and reaches end of its usable life, it is easily dismantled, and a significant portion (by weight) can be recycled. Fuel cells are minimally toxic to take apart, and few special precautions are required for handling and disposal.





PRISMA VI+
Fuel Cell System

PRISMA VI+



DESCRIPTION

60kW Fuel Cell System
Light/Medium-Duty Applications

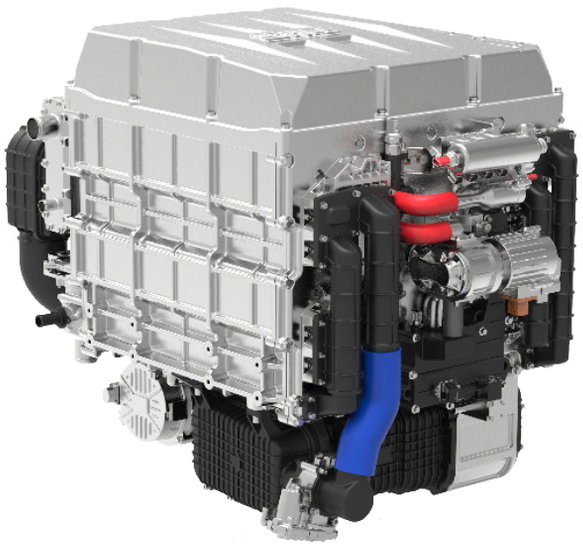
FEATURES

Outstanding Freeze Start Capability
Industry-leading Durability

Functional Safety: ASIL C(Optional ISO26262:2018)
Software Architecture: AUTOSAR
Ingress Protection: IP67

TECHNICAL SPECIFICATIONS

Rated Power Net (kW): 60
Freeze Start Temp. (°C): -30
Working Voltage (V): 450 - 750
Design Life (h): 15,000
Dimensions (mm): 995 x 818 x 593
Weight (kg): 210



PRISMA XII+
Fuel Cell System

PRISMA XII+



DESCRIPTION

117kW Fuel Cell System
Heavy-Duty Applications

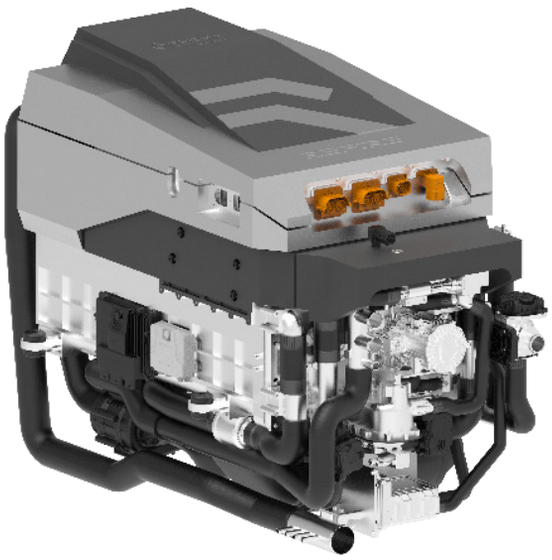
FEATURES

Outstanding Freeze Start Capability
Industry-leading Durability

Functional Safety: ASIL C(ISO26262:2018)
Software Architecture: AUTOSAR
Ingress Protection: IP67

TECHNICAL SPECIFICATIONS

Rated Power Net (kW): 117
Freeze Start Temp. (°C): -30
Working Voltage (V): 450 - 750
Design Life (h): 25,000
Dimensions (mm): 892 x 767 x 826
Weight (kg): 278



PRISMA XXII
Fuel Cell System

PRISMA XXII



DESCRIPTION

180kW Fuel Cell System
Heavy-Duty Applications

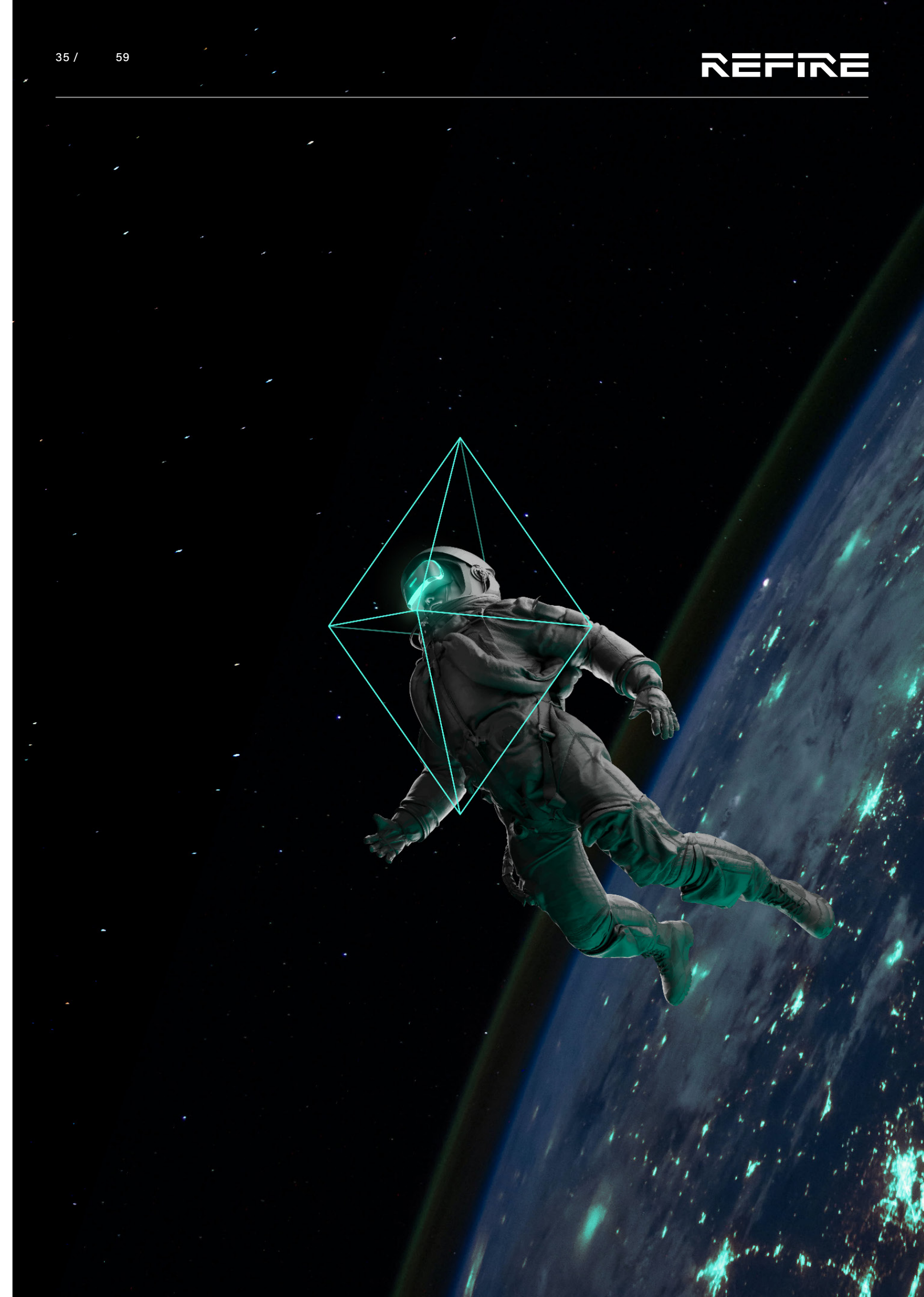
FEATURES

Outstanding Freeze Start Capability
Industry-leading Durability
Air Compressor With Expander, Exhaust Energy Recycling

Functional Safety: ASIL C(Optional ISO26262:2018)
Software Architecture: AUTOSAR 4.2
Ingress Protection: IP67
EMC: Level 3

TECHNICAL SPECIFICATIONS

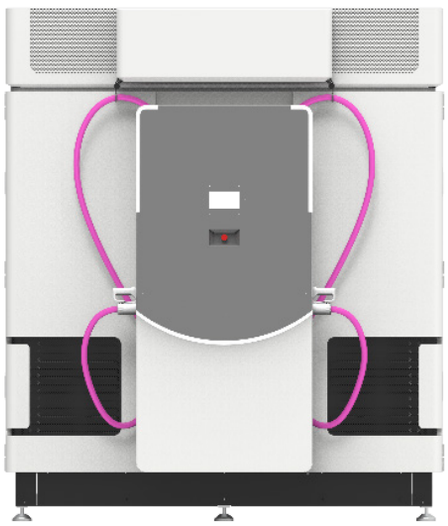
Rated Power Net (kW): 220
Freeze Start Temp. (°C): -30
Max. Continuous Operating Water Temp. (°C): 95
Rated Efficiency (%): 45
Peak Efficiency (%): 60
Weight (kg): 335 w. DC



EV SUPERCHARGER

Decarbonise your footprint further with zero emission, off-grid fast charging of electric vehicles. **Experience peace of mind for the road ahead.**

REFIRE EV superchargers are available in dual and multi-port configurations for *anywhere* and *anytime* electric charging of private cars and commercial fleets.



HSC 2-240

DESCRIPTION

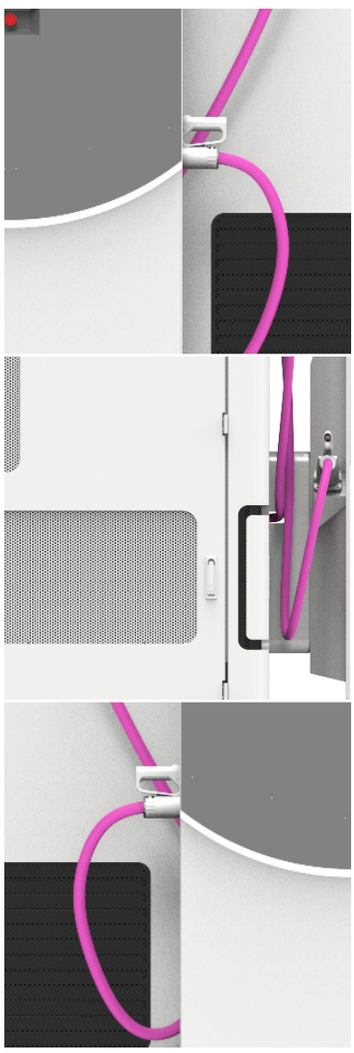
240kW fuel cell-powered EV supercharger
Light- to mid-duty

FEATURES

Dual-port, zero emission EV supercharging
Supports major charging standards
Dynamic power for asymmetric charging
High power, liquid-cooled, lightweight cables

Outstanding Freeze Start Capability
Highly integrated all-in-one design
Modular plug & play hdyrogen storage

Flexible relocation, no site construction
Complies with CQM safety standards
No substation required
Grid-neutral product
247 service plan



TECHNICAL SPECIFICATIONS

Max Output Power (kW): 400
Output Voltage Range (V): 250 - 1000 DC
Max Output Current (A): 400
Dimensions (mm): 2200 x 1700 x 2600
Hydrogen Supply Pressure (mPa): ⩾ 1.2
Number Of Charging Guns: 2
Weight (kg): 2500

REFIRE

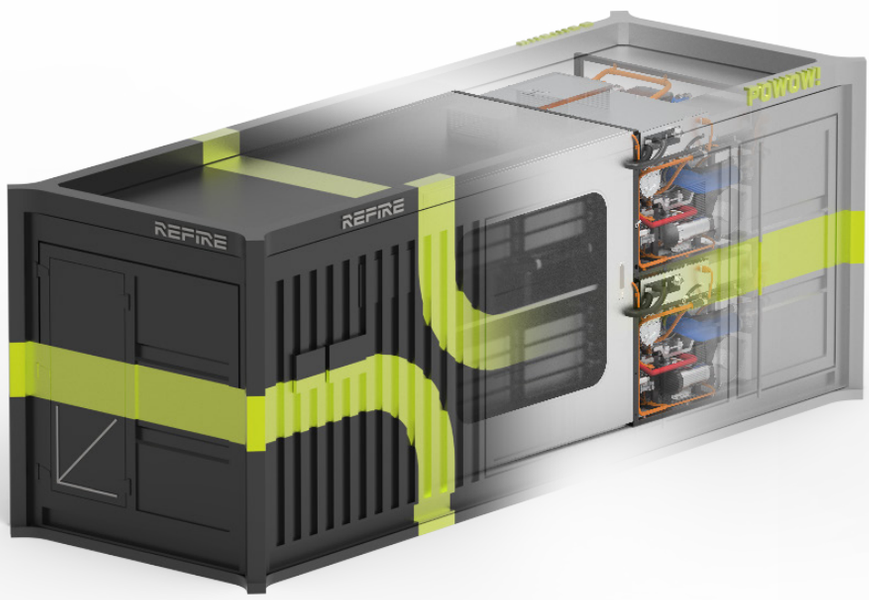


REFIRE EV SUPERCHARGERS ARE THE WORLD'S FIRST OFF-GRID, ALWAYS-ON SOLUTION
PROVIDING ENERGY CERTAINTY FOR URBAN AND EXTRA-URBAN EV DRIVERS.

kW POWER STATION

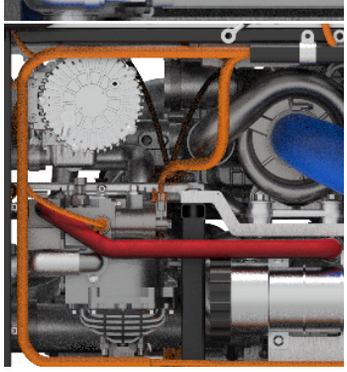
REFIRE designs and custom builds megawatt scale fuel cell-powered stationary power units.

The POWOW off-grid product line of H2E generators is modular by design and offers solutions from 200kW up to multi-megawatt scale.



POWOW 200+





DESCRIPTION

200kW+ Modular Power Station

FEATURES

Integrated, self-sustained design;
Multiple safety protection;
Long-term service life;
Flexible deployment;

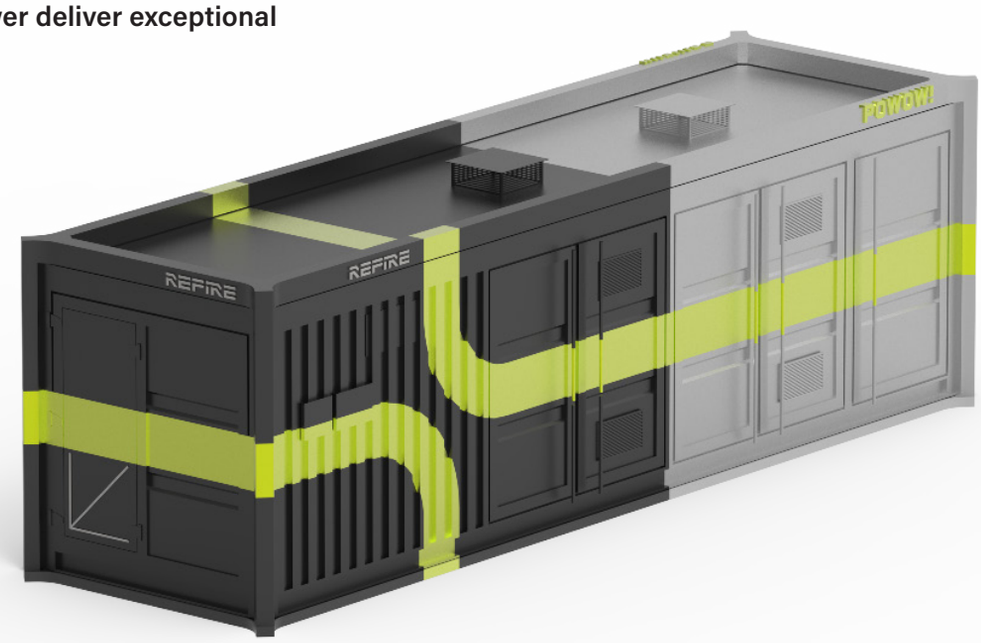
TECHNICAL SPECIFICATIONS

Rated power net (kW): 200
Operating temp. (°C): -20 - 45
Output voltage (VAC): 380
Service life (years): 10

MW POWER STATION

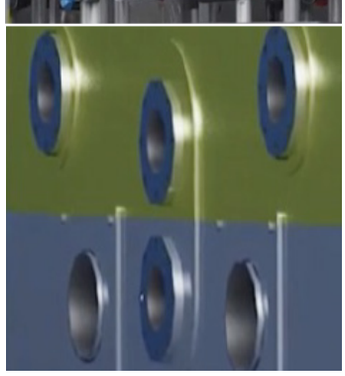
Modular POWOW off-grid stationary power enables decarbonised power for everything from construction sites to mines, airports, ports, factories, and building clusters.

Combined heat and power deliver exceptional overall efficiency.



POWOW 1000+





DESCRIPTION

1MW+ Modular Power Station

FEATURES

Integrated, self-sustained design;
Three-layer control architecture
Multiple safety protection;
Long-term service life;
Flexible deployment;

TECHNICAL SPECIFICATIONS

Rated power net (kW): 1000
Operating temp. (°C): -20 - 45
Output voltage (VAC): 690 (380, optional)
Service life (years): 10

SHOWCASING



ENDLESS POSSIBILITIES

Together with our farsighted, early adopter partners, REFIRE has always strived to take prototypes to production and to roll these out at scale in order to serve industry and the community as rapidly as possible. In 2018, beginning with a fleet of five hundred 7.5t trucks for freight-forwarders in Shanghai, the city set the stage for other regions to witness what was possible with hydrogen fuel cell power. This also necessitated writing the framework for public usage of hydrogen as an energy carrier.

Since then, we have continued to work with more partners to deploy hydrogen fuel cell-powered vehicles and power machines.

The following is a small selection of the many projects completed by REFIRE. Please contact us for details of the 150+ fuel cell powertrain projects and prototypes commissioned by our customers. Or tell us about a zero-emission project you have in mind - we would love to help.





HYBATT BUS (BRANDENBURG)

On July 29th 2021, German bus operator UVG took its first delivery of a fuel cell bus, powered by a REFIRE fuel cell system. The bus was commissioned to operate on routes between the town of Schwedt and the ecological tourist area known as the Lower Oder Valley National Park, in the state of Brandenburg.

Launched in response to the EU's Clean Vehicle Directive, the fuel cell bus project has been warmly welcomed by residents and officials from the area who praised its clean and quiet operation, zero emissions power, and impressive range of over 300km.




DIESEL TO ZERO EMISSIONS WITH HYDROGEN
32-26 77-0
WirbewegenSie.de



YUTONG 12M BUS

In the winter of 2019, the city of Zhengzhou, in the central plains of China, put 150 Yutong REFIRE fuel cell-powered buses into operation. Drivers of the 12-metre-long vehicles began a new chapter in zero-emissions mass transit during the harshest weather conditions of the year. No fewer than 37 systems were subjected to rigorous performance tests, component optimization, electromagnetic safety, and noise reduction protocols in order to meet Yutong's stringent engineering standards.

The fleet of environmentally friendly buses operates on twenty routes across the city. Drivers and passengers routinely comment on the pleasant user experience and the contribution to pollution reduction.


Fuel Cell Bus
POWERED BY REFIRE
A2 酒泉大数据
A2 酒泉



DONGFENG 7.5T LOGISTIC VEHICLE

500+ Dongfeng logistics trucks deployed by REFIRE made up the world's largest commercial, zero carbon, hydrogen-powered fleet when they were launched in 2017. Since then, these vehicles have been helping over 20 Chinese e-commerce enterprises to implement green urban logistics across Shanghai and neighbouring cities such as Kunshan, Suzhou, Hangzhou, Changshu, and even as far afield as Yangshan Deepwater Port.

Today these vehicles continue to reliably serve the region, helping to clean the air, reduce noise, and conserve energy.


POWERED BY REFIRE
沪A 09923F


REFIRE







4.5T LAST MILE CITY DELIVERY TRUCK

Jointly developed by REFIRE, the 4.5-tonne refrigerated city delivery truck has been designed for full integration of hydrogen storage tanks and the fuel cell-electric powertrain into the chassis without reduction in cargo volume. With a range of around 500km, it represents an improvement over pure BEVs (Battery Electric Vehicles), and a viable, clean alternative to Diesel-powered refrigerated trucks.

This vehicle will make its debut in 2022 Q4, providing a quiet and green solution to urban distribution of food and goods requiring refrigeration. By 2025 it is expected that 5,000 of these vehicles will be operating in several of the most densely populated regions of China. It will also be offered to customers in Europe and the Americas to help accelerate the transformation of diesel logistics to clean hydrogen-electric power.


零碳驱动
ZERO CARBON
H-CUBE
星索1号
Star Explore One





HQUBE 49T TRUCK

Equipped with REFIRE's PRISMA fuel cell system, the 49-tonne HQUBE heavy duty truck delivers a peak power of 126kW. The vehicle houses 12 hydrogen storage tanks pressurized to 70Mpa which can be refuelled in only 5-8 minutes.

Thanks in part to its streamlined, low drag coefficient cab design the HQUBE is capable of nearly 1000km on a single fill. This range ensures that it meets the commercial requirements of heavy-duty, long-haul, intercity and inter-provincial freight.



FAW J6P

Since its debut in 2021, REFIRE's 49-tonne FAW heavy-duty tractor has been making waves in intercity logistics. Drivers and fleet operators benefit from the fast refueling time of just 15 minutes and the 300+ kilometre range even when fully loaded. This is made possible by the high energy density and power effciency of the fuel cell system which is optimised for best performance under anticipated use case conditions.

Ease of operation and simple transfer of driver skills from diesel to the FAW's fuel cell powertrain enable this truck to have immediate positive ecological impact over typical intercity routes.




零碳驱动
REFIRE
WS0184
中国一汽
FAW
FAW
FAW


解放
FCEV
FAW
FAW
FAW
中国一汽
Hydrogen
FCEV
氢燃料
HaiDe 海德汽车
HAIDE VEHICLE
16L燃料电池环卫车







FAW 18T SPRINKLER

Sprinkler trucks across China are being revolutionized with non-polluting drive-trains. Sanitation vehicles typically cleanse city streets during the warmer months, but emissions from conventional diesel models are an unwanted and concentrated atmospheric burden, particularly because of the need for slow operation.

Manufactured by FAW, the 18T sprinkler has been reinvented by REFIRE to incorporate a zero emissions hydrogen-electric powertrain. When hydrogen fuel cells combine hydrogen and fresh air to produce on-demand electric power, the only by-product is pure water. Additionally, the low noise produced by the upgraded vehicles is a valuable benefit to urban residents.


零ZERO CARBON碳
总质量 31000Kg





SANY 31T CEMENT MIXER

The urbanization of parts of Asia has been extraordinarily rapid with ever-changing skylines and landscapes. The humble cement mixer is a vehicle right at the centre of these changes. It must navigate infrastructure and commercial development project sites, often in adverse conditions. Durability and reliability are prerequisites. Every component must interoperate flawlessly, from the chassis and suspension to the fuel cell powertrain.

REFIRE Application Engineering has redefined this workhorse of the construction industries with a zero carbon operational footprint. All the benefits of its hydrogen-electric drive are brought to bear on the complex duty cycle, such as impressive torque, quiet operation, driver comfort and ease of use. This vehicle exemplifies REFIRE's ambition to green the most polluting sectors first.

CONTACT US



THANK YOU!

We value your interest in REFIRE and in the hydrogen-electric energy revolution. Whether or not you are already involved, we would love to share more about how, together, we can contribute to the decarbonisation of energy & power, so the world can breathe easy.

Please email or call us to start the conversation.

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