



**PORT KEMBLA
HYDROGEN HUB**

**H2 FUTURE MOBILITY
DAY #8**
- 29 May 2025



www.portkemblahydrogenhub.com.au



VISIT OUR WEBSITE



The Department of Primary Industries and Regional Development acknowledges that it stands on Country which always was and always will be Aboriginal land. We acknowledge the Traditional Custodians of the land and waters, and we show our respect for Elders past, present and emerging. We are committed to providing places in which Aboriginal people are included socially, culturally and economically through thoughtful and collaborative approaches to our work.



Future Mobility Day #8 Program

- BlueScope Visitor Centre
- 29 May 2025

12.00pm	Registration desk opens
12.15pm	Welcome, Nigel McKinnon, DPIRD - Lunch & Networking in Foyer
12.45pm	Nigel McKinnon, DPIRD - Introduction, H2 Future Mobility Strategy
12.50pm	,David Scrimshaw, Gastech - ControlR Hydrogen Hybrid System
1.15 pm	Vehicle Inspection Session - Outside - Volvo FM540 Prime Mover with ControlR conversion
2.00pm	Close

Vehicle Driving Session – for those that have registered

Hydrogen Hub Vision

Port Kembla - Australia's first **5GW+ hydrogen hub** to service domestic and export markets by 2030

Ambitious Vision of creating Australia's first **5GW+ hydrogen hub** is being realised with over **\$750m** in **transformative energy infrastructure** delivered.

\$1.7bn of proposed **hydrogen production projects** reflect significant offtake opportunities from **green steel, heavy vehicle mobility, power generation, gas network injection** and **exports** at Port Kembla.

EXPORT MARKETS



JAPAN - 18 DAYS

KOREA - 22 DAYS



PORT KEMBLA
HYDROGEN HUB

Coregas launches Australia's first hydrogen refuelling station for heavy transport vehicles

JULY 25, 2023



PRESS RELEASE

GE Technology to Power Australia's First Dual-Fuel Gas and Hydrogen Power Plant

June 16, 2021

Major Energy Projects

More than **\$750m+** of recently completed supportive **major energy projects** have transformed the **Port Kembla Hydrogen Hub ecosystem**. These include:

- **Coregas - Hydrogen Refuelling Station** has enabled Australia's first zero emissions **heavy vehicle trials**, including the **Remondis** hydrogen refuse truck
- **Squadron Energy - LNG Terminal** at Port Kembla is Australia's first **gas importation** facility with potential to **support gas exports** in the future
- **Jemena - Port Kembla Pipeline Duplication + Eastern Gas Pipeline upgrades** have delivered increased **network capacity** to **east coast gas markets**
- **EnergyAustralia** - construction of **Tallawarra B** and the **Tallawarra A upgrade** have delivered Australia's first **dual fuel capable power stations**.



Hydrogen Refuelling Stations

CSIRO Report - July 2023

- **5 Operational** Hydrogen Refuelling Stations in **Australia**
- Total **combined daily** capacity = **285kg**
- **20 new stations** planned including the **\$2m Coregas Port Kembla** facility assisted by a **\$500,000 NSW Government** grant



Now Operational
Daily capacity = 400kg

Global Centre of Excellence for Hydrogen Heavy Vehicles

Fuel cell and hydrogen combustion engine technologies can decarbonise diesel powered **heavy transport** - a **major source of carbon emissions**.

The **Vision** of creating a **globally recognised Centre of Excellence** for **Heavy Vehicles** powered by **Hydrogen** in the **Illawarra Shoalhaven** region is already well advanced. (Refer Case Studies)



H2 Future Mobility Strategy



AN INITIATIVE OF THE PORT KEMBLA HYDROGEN HUB



PORT KEMBLA
HYDROGEN HUB

Case Study #1 : Foton Mobility

New Manufacturing Facility

- Australian owned Foton Mobility Distribution is building a new heavy vehicle manufacturing facility in Nowra
- Facility to build hydrogen and electric powered trucks and buses
- Assemble and test hydrogen fuel cells
- Up to 100 new jobs will be created

Facilitation Support Provided

- Site selection and planning pathway advice
- Key industry group and government stakeholder introductions
- Education provider connections for future workforce planning needs
- Business connections for supply chain procurement opportunities

Procurement Outcomes

- City Coast Services now build the dealer optioned tipper body for the Foton T5 EV - Australia's best selling light electric truck
- ICN NSW now identifying other supply chain opportunities for local procurement outcomes



H2 Future Mobility is Now

Fleet Operator: [Remondis](#)
Commence: October 2023
Vehicle OEM: [Hyzon](#)
Model: [Hyzon Refuse Truck](#)
Vehicles: 1
Powertrain: Fuel Cell Electric
Fuel Cell OEM: [Hyzon](#)
Configuration: 6 x 4
H2 Storage: 25kg
Bin Lifts: 1,200/shift
Range: 200kms
FC Power: 110kw
Tank Pressure: 350 bar
HRS: [Coregas H2Station](#)
Refuelling: 15 minutes
GVM: 22.5 tonnes





NET ZERO MEETS COMMERCIAL SENSE



Commercial in Confidence

NET ZERO MEETS COMMERCIAL SENSE

ABOUT US



- Australia's leading converter of internal combustion engines to run on alternative fuels.
- For over 25 years
- Focus on:
 - Heavy transport vehicles
 - Power generation equipment (gensets)
- Gastech is where:

NET ZERO MEETS COMMERCIAL SENSE



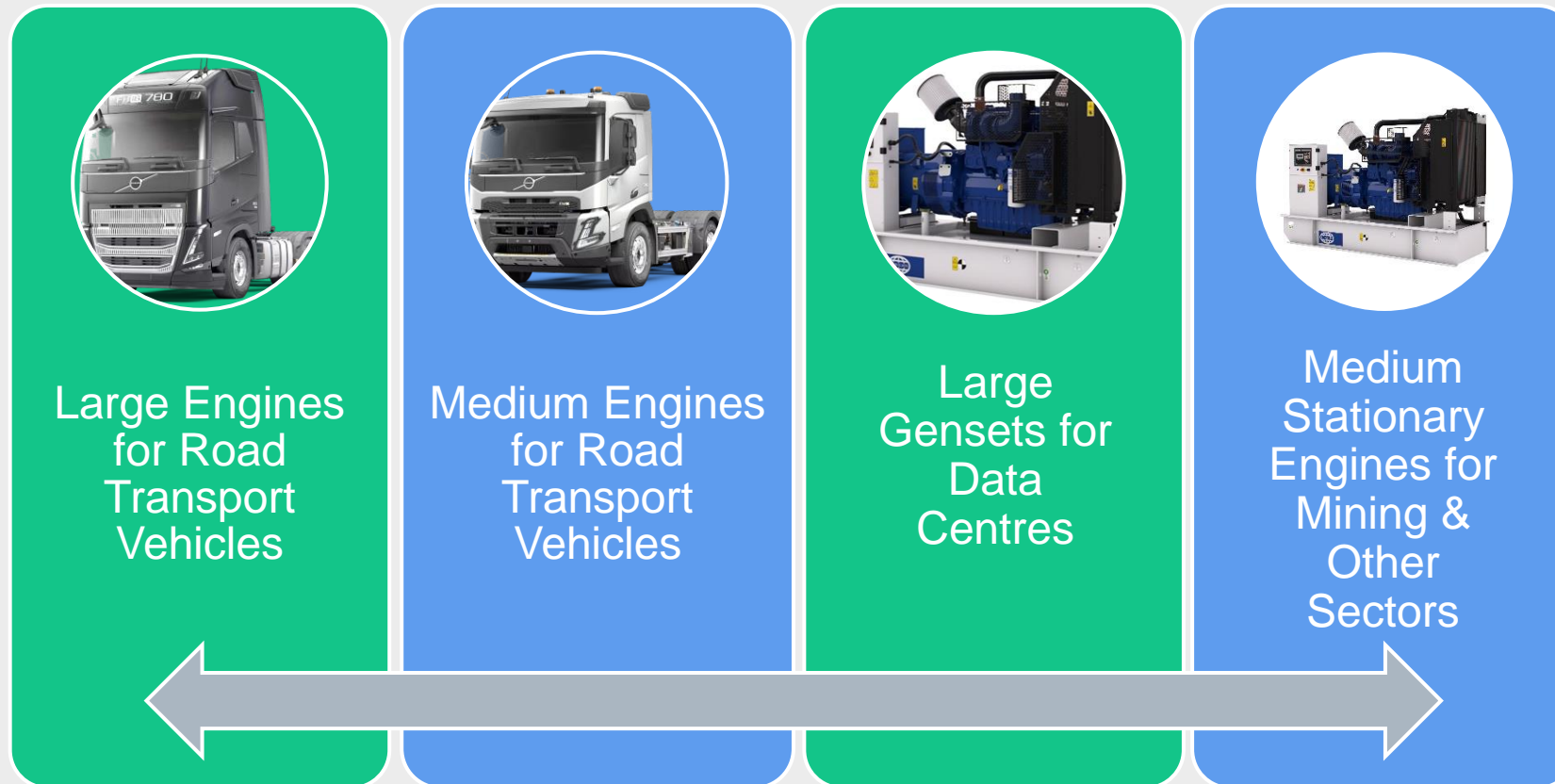
Commercial in Confidence



NET ZERO MEETS COMMERCIAL SENSE

COMPANY PURPOSE

The conversion of internal combustion engines (ICE's) in multiple applications, to run on ControlR™ hydrogen.



Commercial in Confidence

NET ZERO MEETS COMMERCIAL SENSE

OUR experienced management



David Scrimshaw
Managing Director

Founder of Ozito Power Tools & other famous brands.

Winner of Multiple Design Awards

21 years experience in the Auto Industry in Senior Management Roles.



Trevor Warren
Operations Director

Has run successful automotive business for more than 30 years.

Successful agriculturalist

Mining entrepreneur.



Dean Marchiandi
Non-Executive Director

Founder of Gastech

Owner of Exhaust Control Industries for over 30 years –

One of Australia's leading emissions experts

Mining entrepreneur



Grant Randle
Engineering Manager.

Former head of engine development – GMH

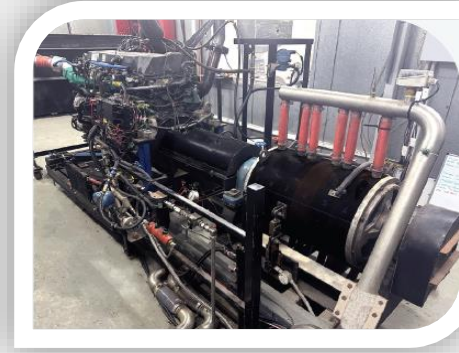
Highly acclaimed mechanical engineer with experience at GM Detroit USA & Ruesselsheim, Germany.

Compliant facilities

- The only facility in the southern hemisphere –
 - Steady state, eddy current dynamometer.
 - Load bank
 - Hi volume water chiller
 - Multi fuel storage
 - Deisel, Gasoline
 - LPG, CNG
 - Nitrogen
 - & Hydrogen
- Certified Site
- Registered as an AFSACS partner of VicRoads (Alternative Fuel Systems Assessment & Certification Scheme)



1500 SqM Office/Factory
• Mordialloc, Victoria



**Steady State Eddy current
Dynamometer**



Load Bank



**Hi Volume Water Chiller &
Multi Fuel Storage**



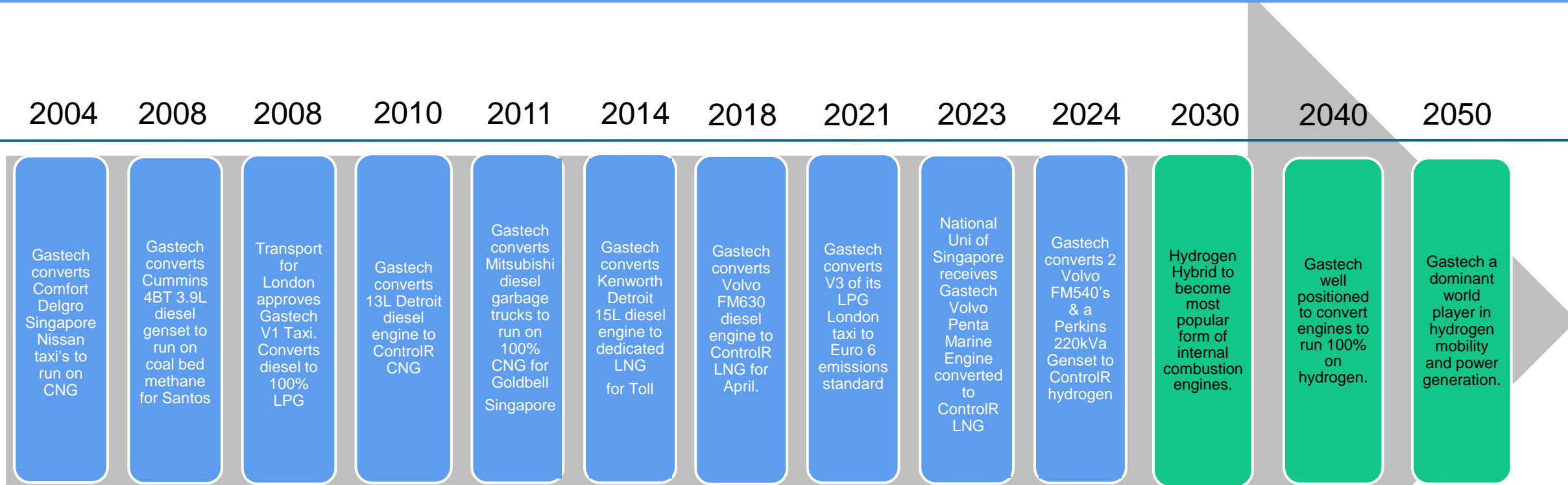
Hydrogen Storage



Hydrogen Refueler

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Gastech's project history



comfortdelgro



Santos



APRIL

TOLL



Perkins



Here's the problem



Carbon Emissions

- 25% of all carbon emissions come from heavy transport.

Supply & Demand

- Hydrogen producers need more offtake.
- Equipment that runs on H₂ is not widely available.

Range Anxiety

- Users of 100% hydrogen equipment, may not be able to refill during a trip.

The Price of Hydrogen

- Green hydrogen is significantly more expensive than diesel.

The Technical Learning Curve

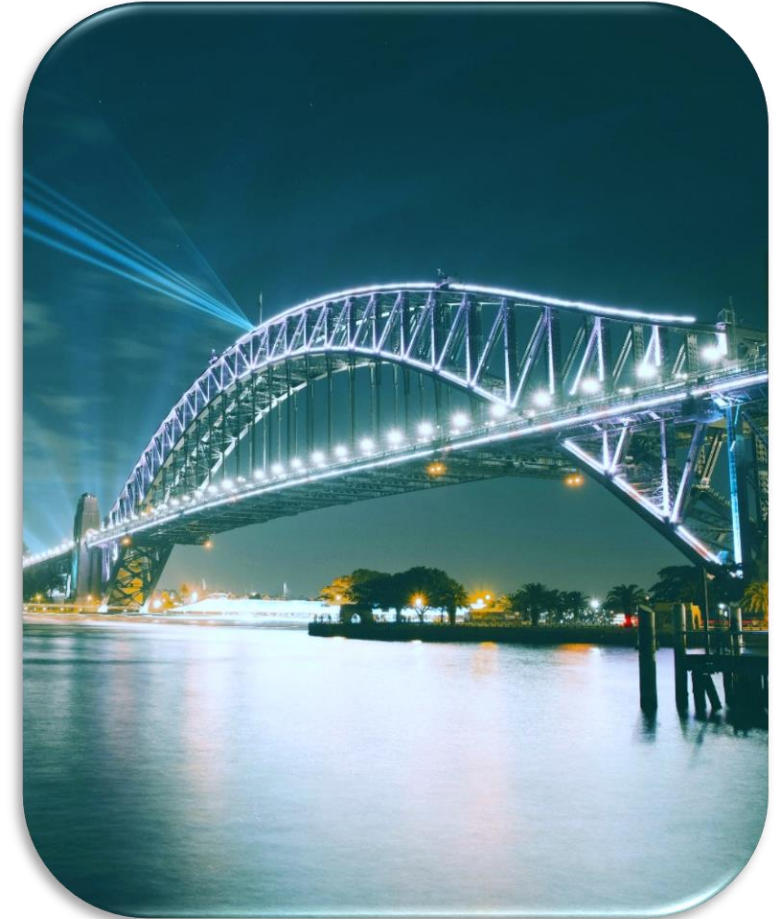
- How to store and handle hydrogen is unfamiliar.
- Service and maintenance of fuel cells is challenging.

we must build a bridge to net zero

How?

- By creating an ecosystem that affordably accelerates the use of hydrogen.
- By converting existing equipment, particularly heavy trucks to run on a hydrogen/diesel hybrid blend. Providing better use of capital.
- By using hydrogen in equipment that everyone knows and trusts.
- Exceeding government carbon reduction targets.

ControlR™ is where net zero meets commercial sense.



NET ZERO MEETS COMMERCIAL SENSE

ABOUT OUR hybrid TECHNOLOGY



- Unique IP developed over 25 years. World leading.



- Reduces diesel use & its pollutants, by up to 70%. Replace with hydrogen.



- Switchable in-cabin, between hydrogen blend and 100% diesel.



- Easy to install, non-invasive to OEM components.



- Highly scalable.



- Ultimate control of both fuels.

 **ControlR**TM
HYDROGEN **HYBRID** SYSTEM

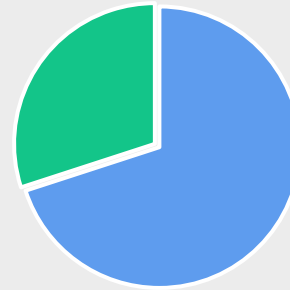
Commercial in Confidence

NET ZERO MEETS COMMERCIAL SENSE

Unique technology

Matched OEM Performance

- ControlR's™ brilliant hybrid technology' does not over supply fuel to the engine.
- Carbon and NOx emissions reduced.
- Advanced electronics and clever IP.
- Reliably delivering higher diesel substitution - up to 70% in hybrid mode.
- Driver will not notice any performance difference.
- How we do this is confidential & subject to patent protection
- Details will be provided after signing an NDA.



■ Hydrogen ■ Diesel □



Commercial in Confidence

ENVIRONMENT & SECURITY

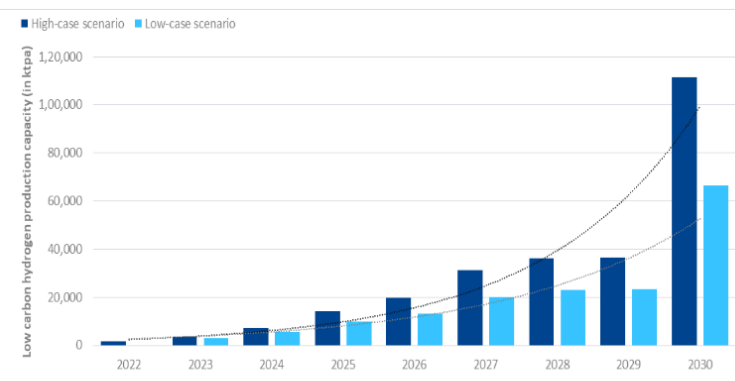
ENERGY SECURITY

REDUCING EMISSIONS

REDUCING COSTS

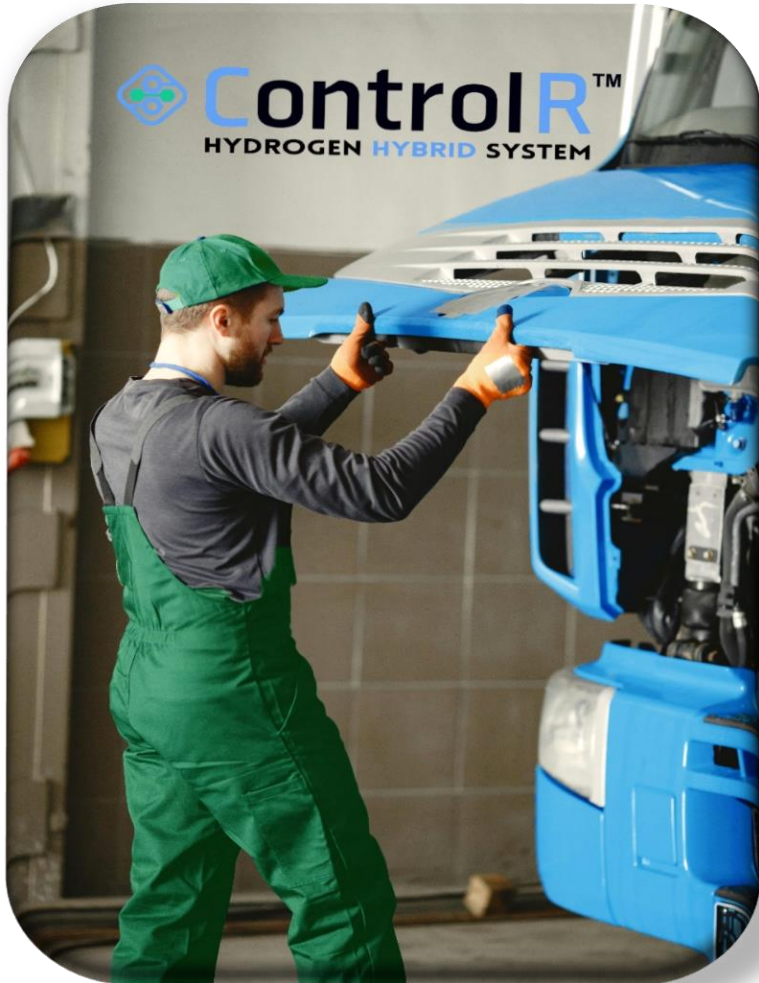
- ControlR™ can use any grade of hydrogen (white, grey, blue or green etc.)
- Reducing the risk of supply disruption due to economic and geo-political trade restrictions.
- A ControlR™ conversion on an engine already in use, immediately reduces emissions above government targets.
- The result is a much faster journey to net zero.
- ControlR™ utilizes existing engines avoiding the need to buy new equipment

Low-carbon hydrogen to play a defining role in energy transition.



NET ZERO MEETS COMMERCIAL SENSE

professional support



CONVERSIONS

- Initially completed by Gastech Technicians.
- We will train your team for larger quantities.
- Requires a mechanic & a licensed gas fitter.
- Approved Vehicle Examiner (AVE)
- All hydrogen conversions require modification approval (section 87 - NHVL)

SERVICE & SUPPORT

- Full service & tech support available.

NET ZERO MEETS COMMERCIAL SENSE

start your project



TALK TO US NOW

- Volvo FM540 packages ready now.
- Other brands to order.
- Finance packages available.
- Increase the resale value of your vehicles.
- Volume orders limited by capacity, get in early.
- Currently investing heavily in scale.
- We also do gensets & other stationary engines.



Thank you for taking the time to review this opportunity. For further information please contact:

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MB: +61417989292

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Disclaimer: ControlR™ is wholly owned by Hyco ICE Pty Ltd, trading as Gastech Engine & Energy. This trademark is used to describe Gastech's Hydrogen Hybrid System technology in its entirety. ControlR™ has multiple variations including various engine electronic maps, fuel delivery and storage designs and specifications.



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QUESTIONS



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Vehicle Inspection & Drive Session

- Volvo FM540 6x4 Prime Mover with ControlR™ Hydrogen Hybrid System





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THANK YOU

**National Hydrogen
Truck Show**



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