

TAFE QUEENSLAND

VET Emerging Industries Initiative

TQ - CQU Joint-initiative



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Hydrogen Training in Queensland

The Queensland Government, Department of Education Small Business and Training (DESBT) have committed to funding for the development of training as part of the Future Skills Fund Initiative: VET Emerging Industries.

This commitment includes product development and training delivery in emerging industries, advanced manufacturing and energy with a focus on Hydrogen training.



TAFE Queensland – Industry Collaboration



Media release

Minister for Employment and Small Business
Minister for Training and Skills Development
The Honourable Di Farmer



12 July 2022

POWERFULL PARTNERSHIP FOR TOWNSVILLE'S HYDROGEN INDUSTRY

Townsville's future as a renewable hydrogen powerhouse has been further strengthened with the signing of a Memorandum of Understanding (MoU) between TAFE Queensland and Ark Energy Corporation Pty Ltd today to deliver training for one of Australia's fastest growing industry workforces.

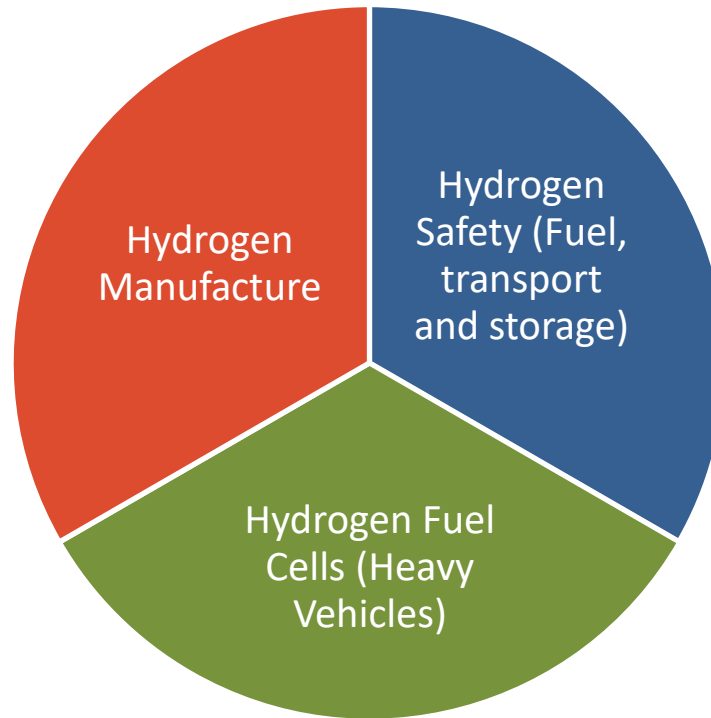
The Minister for Training and Skills Development Di Farmer is in Townsville to witness the signing today and said TAFE Queensland will deliver training to upskill and reskill Ark Energy's workforce along with its affiliated companies, including Sun Metals and Townsville Logistics.

"Workforce development goes hand in hand with industry development so it's vital our future workforce has the right training to take up new and exciting opportunities in the growing hydrogen industry, and support Queensland's position as an industry leader," Minister Farmer said.



Hydrogen Training in Queensland

TAFE Queensland, in partnership with CQU have received funding as part of this initiative to fund product development for hydrogen training:



Hydrogen Manufacture

PROJECT NAME	DELIVERABLES	KPIs
Hydrogen Manufacturing Skillsets	<p><u>Industry Consultation</u></p> <p><u>Product development (joint CQU/TQ collaboration):</u> UEGSS00013 Basic H2 safety skillset UEGSS00014 Inject H2 into distribution networks UEGSS00015 Monitor H2 using control systems Additional units as outlined in document</p> <p><u>Pilot Program:</u> 8 x fully funded cohorts UEGSS00013 2 x fully funded cohorts UEGSS00015</p>	<p>Consultation complete by October 2022</p> <p>Skillsets developed by December 2022</p> <p>First 14 places delivered by June 2023 with remaining delivered by December 2023</p>
Hydrogen Plant VR Safety Training	<p><u>Product Development</u></p> <p>Development of Virtual Reality training to safely shut down and operate Hydrogen Electrolysers with no risk of harm. How to maintain safety when operating in the context of a Hydrogen plant.</p> <p>Consultation with key industry players during development.</p> <p><u>Delivery – Pilot Program</u></p> <p>2 x fully funded cohort - 1 day non-accredited VR training program Note: Further funding may be requested on successful delivery of pilot program as evidenced by industry demand.</p>	<p>Development of VR training product by March 2023</p> <p>Delivery of first cohort of training by June 2023</p>



Hydrogen Safety

PROJECT NAME	DELIVERABLES	KPIs
Hydrogen basic fundamentals	<p><u>Product Development</u> Development of 1 x non-accredited basic hydrogen safety fundamentals online program. Consultation with key industry players during development.</p> <p><u>Delivery – Pilot Program</u> 42 x places Hydrogen fundamentals micro credential.</p> <p>Note: Further funding may be requested on successful delivery of pilot program as evidenced by industry demand.</p>	<p>Development of VR training product by March 2023</p> <p>Delivery of first cohort of training by June 2023</p>
Hydrogen Process Plant (PMA) Units	<p><u>Industry Consultation</u> <u>Product development (joint CQU/TQ collaboration):</u> MSMPER201 Undertake minor maintenance MSMSUP240 Conduct hazard analysis PMAOPS347 Create and conduct isolations in the workplace PMASUP244 Prepare and isolate plant PMAOPS232 Operate filtration equipment PMAOPS315 Operate and troubleshoot process control systems PMAOPS345 Operate and troubleshoot gas treatment process PMAOPS348 Operate safety, protection and shutdown systems</p>	<p>Consultation complete by October 2022</p> <p>Developed by June 2023</p>



Hydrogen Fuel Cell (Heavy Commercial)

PROJECT NAME	DELIVERABLES	KPIs
Hydrogen Fuel Cells (non-accredited training)	<p><u>Industry Consultation</u></p> <p><u>Product development</u></p> <p>2 x non-accredited short courses on operating safely around hydrogen and refuelling.</p> <p>1 x non-accredited training on driver operations/mobility training.</p> <p><u>Pilot Program:</u></p> <p>Train the trainer</p> <p>2 x fully funded cohorts fuel-cell driver operation safety training</p> <p>1 x fully-funded cohort how to operate safely around hydrogen</p> <p>1 x fully funded how to safely manage storage and refuelling</p>	<p>Develop course materials by March 2023</p> <p>Deliver first pilot program by June 2023 with remaining delivered by December 2023</p>
VR Training for BEV and H2 Fuel Cell vehicles (PARTLY FUNDED)	<p><u>Product Development</u></p> <p>1 x VR safety bolt-on program for Hydrogen Fuel Cell Electric vehicles (identify component parts, safely depower and reinitialise, etc)</p> <p><u>Pilot Program:</u></p> <p>1 x cohort delivery of H2 fuel cell safety.</p>	<p>Project mapped and scoped by December 2022</p> <p>Resource development complete by March 2023</p> <p>Students enrolled in pilot by June 2023 with program completed by December 2023</p>



TAFE Queensland – Funded Positions

In addition to product development, TAFE Queensland have received 2 funded positions to ensure industry is represented in the development of appropriate future skills training.

Emerging Industries Business Development Manager: Liaise with Hydrogen Manufacturers, Industry Groups, and RTO networks to inform training products.

VET Emerging Industries Project Manager: Ensure the smooth execution and delivery of VET Emerging Industries projects.



Equipment purchased to enhance delivery:

- Hydrogen simulation plant – Emerson
- Hydrofoil pro education kits
- Multi spectrum infrared hydrogen flame detectors
- Catalytic combustible gas sensors
- Gas chromatograph
- Simtronics simulations that revolve around hydrogen production, reverse osmosis and gas plant to liquid technology
- Possible Hydrogen electrolyser

CQU have a Professor of Hydrogen and a research arm for Hydrogen, and are hosting Hydrogen Grand Prix for students combined with the Science Technology, Engineering and Manufacturing courses.