GAS IRC

Annual Update to Industry Skills Forecast and Proposed Schedule of Work 2020

IRC Skills Forecast and Proposed Schedule of Work (ISF) are required once every three years. In the intervening years SSOs will report on the research questions listed below.

SSOs can also include additional cases for change to training packages as necessary. This will require evidence on why additional proposal(s) should be considered during an intervening year between the full ISFs (see item 4).

It is important that SSOs work with IRCs and other relevant stakeholders to provide evidence demonstrating to the AISC the veracity of claims. Where possible, statistical data should be used as an evidential basis.

SECTION A

1. Inform the AISC of any new industry workforce, skills developments or trends to emerge since the submission of a full ISF.

The Gas industry is being rapidly transformed by new technologies and automation. Some of the most recent areas of change include:

Data-enabled digital technologies

New technological and digital innovations are revolutionising Gas Industry operations, presenting opportunities as well as challenges. With more than 39,000 kilometres of gas transmission pipelines,[1] the Australian Gas industry is well positioned to benefit from the advantages of digital and automation technologies. Recent research by AlphaBeta reveals that automation technology in resource industries such as Gas is divided into three categories:

- Automated operational hardware tools where digitally enabled tools operate either independently or remotely assisted by workers;
- connected workers where technologies such as tablets, sensors, analytics and wearable technologies enable improved executions of activities; and
- Artificial Intelligence (AI) and connected systems where AI-enabled tools and algorithms process large volumes of data to optimise autonomous equipment and operational performance.[2]

Smart sensors and the industrial Internet of Things (IoT) enable remote asset inspections through the live-streaming of inspections and surveys from distant locations. Industry workers

[1] Australian Pipelines & Gas Association. (2019). Pipelines Facts and Figures. Retrieved from https://www.apga.org.au/pipeline-facts-and-figures
[2] AlphaBeta. (2019). Staying Ahead of the Game.

can access real-time information through smartphones, tablets, and digital cameras and save up to 35% on inspection costs and mitigate safety risks from mobilising people to inspection sites.[3]

As more organisations are moving towards predictive asset maintenance and digitalisation, data platforms and data sharing systems become more significant to the Gas industry.[4]

Quality data can lead to actionable intelligence which is achieved through analytical data to enhance strategic decisions and control processes in order to maximise instrument uptime and improve overall operational productivity.[5] Therefore, it is priority to build workers' skills in processing information and handling data based applications.[6] As these devices become more mainstream, gas-fitters and workers in the Gas Supply industry will need to further develop skills around how sensors are installed, monitored, and maintained.

Hydrogen and safety issues

Environmental concerns have led different industries to look for new energy sources. Hydrogen is a viable alternative as it is a very versatile, low cost, and low emission fuel. Renewable hydrogen is produced through a process called electrolysis by splitting water molecules into hydrogen and oxygen. This process is powered by solar, wind, or hydro energy. Water electrolysis is an ideal method for energy production as it is powered by renewable energy to produce a zero-carbon source of hydrogen. Hydrogen production methods require proximity to different resources such as renewable energy resources, grid access and water for the process of electrolysis. Given the abundant land area and renewable resources, Australia is an ideal place for industrial scale production.[7]

Australia can establish itself as a key supplier of hydrogen as countries such as China, South Korea, Singapore, and Japan are relying on hydrogen as a cost-effective route to reducing emissions.[8] Hydrogen can be mixed with natural gas as a way to lower greenhouse gas emissions for space heating, water heating and cooking. It can also be used as a biofuel in cars or stored in fuel cells as an alternative to batteries for electric cars which will require new skills in handling, storing, and using hydrogen.[9] Hydrogen can be safely added to the existing infrastructure and appliances at 10% volume without making any changes to pipes or regulations.[10] Some of the challenges regarding hydrogen include the transportation and storage of liquid hydrogen, hydrogen carriers, pipelines, and hydrogen terminals.

The workforce requires upskilling and retraining especially in hydrogen storage and safe handling. The COAG Hydrogen Council Working Group has recommended training and educational programs to both build the necessary skills for the hydrogen industry and build community understanding and support for hydrogen. With appropriate skills training and accreditation programs, the Australian Gas industry is poised to maximise growth opportunities in the hydrogen value chain. This enables an economically sustainable hydrogen sector, helping to address concerns around energy security and supply.

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[3] DNV. GL. (2019). "Remote Technology Points to Cost Efficiency and Quality Gains." Retrieved from https://www.dnvgl.com/oilgas/perspectives/remote-technology-points-to-cost-efficiency-and-quality-gains.html
[4] DNV.GL. (2019). *A Test of Resilience: The Outlook for the Oil and Gas Industry in 2019.*
[5] Thermo Fisher Scientific. (2019). *Achieving Production Efficiency and Profitability in O&G with Future-Proof Solutions.*
[6] DNV. GL. (2019). *A Test of Resilience: The Outlook for the Oil and Gas Industry in 2019.*
[7] Australian Government. (2018). Hydrogen for Australia's Future.
[8] Australian Government. (2018). Hydrogen for Australia's Future.
[9] COAG Energy Council. (2019). National Hydrogen Strategy: Hydrogen for Transport. Australian Government
[10] Australian Government. (2018). Hydrogen for Australia's Future.

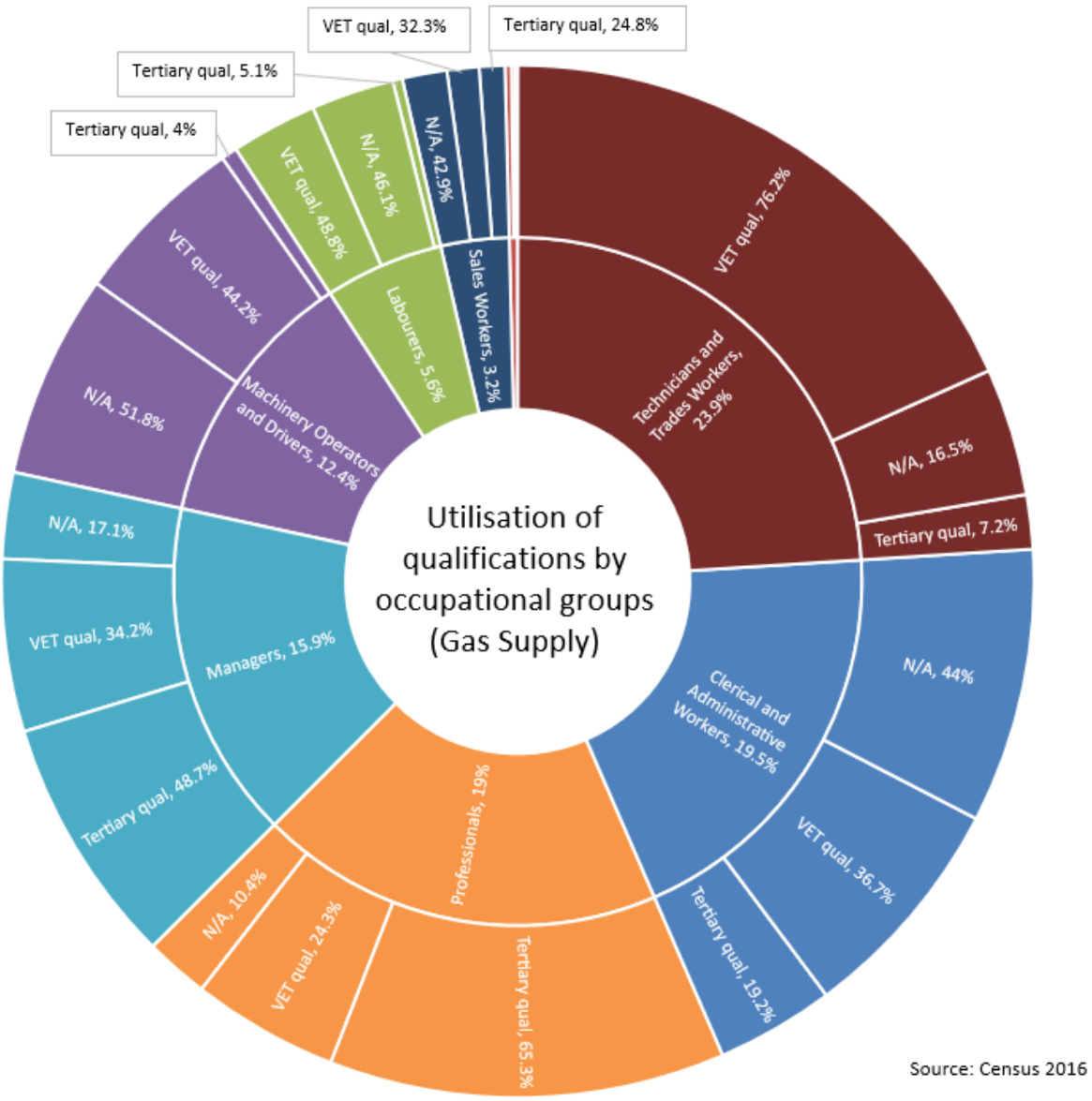
2. Qualification utilisation:

Identify circumstances in which employers:

- employ people with VET qualifications
- do not employ people with VET qualifications

Qualification utilisation by occupational group

At 23.9% of the industry workforce, Technicians and Trades Workers comprise the largest occupational group in the Gas Supply industry. This group is mainly made up of Plumbers, Gas Plant Operators and Fitters and has the highest level of VET qualifications in the industry (76.2%). That figure is more than ten times the proportion of workers in that group with a tertiary qualification (7.2%). The next largest group, Clerical and Administrative Workers, are more likely to have no qualification than to have a VET qualification (44%|36.7%). Professionals, which are primarily made up of Engineers, Analysts and Technical Sales Representatives, make up 19% of the workforce and hold tertiary qualifications at nearly three times the rate that they hold VET qualifications (65.3%|24.3%). Managers are substantially more likely to hold VET qualifications (34.2%) but still less than the rate they hold tertiary qualifications (48.7%). Machinery Operators and Drivers, comprising primarily Truck and Delivery Drivers, make up 12.4% of the industry, hold no qualifications at a higher rate (51.8%) than VET and tertiary qualifications combined (44.2%|4.0%). Each of the three remaining occupational groups comprises approximately 5% of the workforce or less and would generally hold qualifications outside of the UEG Training Package.



Source: Census 2016

3. Are employers using training outside the national system and if so, why?

Some of active members of APGA are also actively involved in the Training Package development through the IRC or TAC. They also promote the use of the National VET system. Although some qualifications or Units of Competency have no enrolment figures reported in NCVER database, there are reports that the industry actually uses the Gas Training Package as their benchmark for their internal training.

There are some indications of use of international training materials for the gas processing role and this is to supplement the existing materials in Gas and other related Training Packages. This may be in relation to the adoption of new processing techniques and technologies that originated outside of Australia. The same also applies to skills for working with hydrogen, such as

handling and transportation of hydrogen and in the areas of hydrogen safety and emergency responses.

4. Identify qualifications with low and no enrolments. Provide reasons and evidence for the need to retain/delete these qualifications.

The following qualification has had zero enrolments in the last four years but was updated to improve industry relevance in 2018.

- UEG60118 Advanced Diploma of Gas Supply Industry Operations

The following units have had zero enrolments in the last four years but were updated to improve industry relevance in 2018.

- UEGNSG111 Produce maintenance strategies and plans for a gas facility
- UEGNSG114 Coordinate and monitor implementation of a risk management plan for a utilities industry facility
- UEGNSG115 Manage gas systems projects
- UEGNSG116 Manage gas industry physical resources
- UEGNSG117 Plan and implement the data acquisition and metering requirements of a gas system
- UEGNSG118 Select and commission equipment to meet pressure and temperature control specifications
- UEGNSG119 Manage workplace risk in a gas industry facility
- UEGNSG122 Manage a customer service gas business unit
- UEGNSG123 Manage financial resources in a gas industry facility
- UEGNSG139 Repair and maintain stationary gas fuelled turbine engines
- UEGNSG200 Conduct butt fusion of large diameter polyethylene gas pipeline systems
- UEGNSG319 Custody transfer metering and gas quality analysis
- UEGNSG324 Follow company procedures to deal with incidents related to the abuse of drugs and alcohol
- UEGNSG353 Carry out aerial surveillance of gas transmission pipelines
- UEGNSG508 Remotely check and report on gas station conditions
- UEGNSG612 Supervise technical operations for liquefied petroleum gas storage and processing

The following unit has had zero enrolments for the last four years and is currently under review in UEG Release 2.0.

- UEGNSG513 Manage emergencies and critical incidents for gas infrastructure

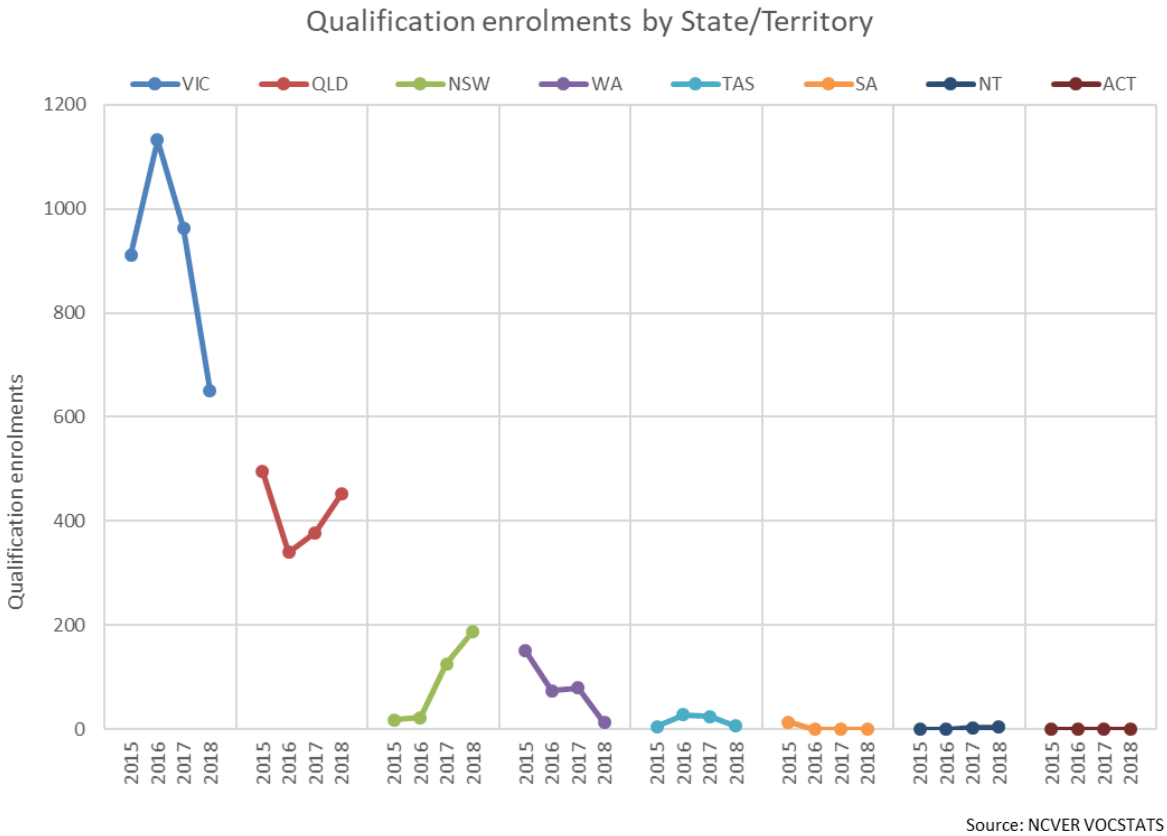
The following units have had zero enrolments for the last four years and are proposed for review in UEG Release 3.0 to improve industry relevance.

- UEGNSG121 Prepare safe design specifications of a gas system
- UEGNSG224 Construct and lay copper and stainless steel gas distribution pipelines
- UEGNSG228 Construct and lay large copper gas distribution pipelines

- UEGNSG325 Coordinate the operation of relevant plant and equipment for transmission pipeline construction
- UEGNSG327 Coordinate transmission pipeline construction operations

Qualification enrolments by state/territory

Qualification enrolments have fallen substantially in several States, most notably Victoria where enrolments have fallen 42.6% since a peak in 2016. This peak was reportedly caused by industry upskilling technical staff. Interestingly, enrolments in Government funded units in Victoria have fallen by more than 65% in the period while domestic fee-for-service enrolments have risen 81.7% in the same period. At a national level, enrolments in government funded units has fallen by more than 85% while fee-for-service enrolments have risen by 3%. This suggests that the decline seen at the qualification level is largely driven by a decline in government funding at the unit level.



Source: NCVER VOCSTATS

5. Reasons for non-completion of qualifications and skill sets (including micro-credentials). Where students complete qualifications or skill sets, what was the purpose of undertaking them (e.g. finding employment, upskilling)?

Data on reasons for non-completion are unfortunately not available at the qualification and Skill Set level in Total VET Activity (TVA) data. Our analysis relates to the known study reasons of students that passed, failed or withdrew from Units of Competency.

The most obvious feature of the data is the near absence of students that failed UEG units which appears to be linked to the fact that the primary reason given for study (job requirement) was also so dominant. That reason alone accounted for nearly 85% of all the reasons given and students that chose that reason were incredibly likely to pass (99%).

There is no dispute over the data shown in the table from the IRC. It was reported, however, that most of those who study as the "requirement of their job" could already be working in the industry but have aspirations for potential career progression through upskilling.

Study reason	Passed	Failed	Withdrawn
It was a requirement of my job	1782	0	18
To get a job	126	9	0
To try a different career	59	0	17
To get a better job or promotion	37	0	0
For personal interest or self-development	26	0	7
I wanted extra skills for my job	21	0	0
To develop my existing business	5	0	0
To start my own business	0	0	0
To get into another course of study	0	0	0
Other reasons	0	0	16

6. Identify, where possible, opportunities for use of cross-sector units developed by the AISC.

The following endorsed Cross Sector units may be suitable for future use in UEG qualifications and Skill Sets, the Units of Competency below will be considered by the Gas IRC for inclusion where applicable. This will allow for the removal of superfluous Units of Competency from the UEG Training Package.

All currently endorsed Cross Sector units

- BSBXCM301 - Engage in workplace communication
- BSBXCM401 - Apply communication strategies in the workplace
- BSBXCM501 - Lead communication in the workplace
- BSBXDB301 - Respond to the service needs of customers and clients with disability
- BSBXDB401 - Develop and implement recruitment processes that are inclusive of people with disability
- BSBXDB501 - Support staff members with disability in the workplace

- BSBXDB502 - Adapt organisations to enhance accessibility for people with disability
- BSBXTW301 - Work in a team
- BSBXTW401 - Lead and facilitate a team
- TAEXDB401 - Plan and implement individual support plans for learners with disability
- TAEXDB501 - Develop and implement accessible training and assessment plans for learners with disability

7. If there are jobs that have experienced changes in skill requirements, provide evidence for these changes and their impact.

Technology in Gas Control Systems has advanced and industry also needs to keep up with these advancements while at the same time ensuring training is standardised across the nation. Whilst different enterprises may have strategies in how they respond to the skills needs, there are opportunities for collaboration in creating a nationally endorsed qualification pathway for the Gas Controller role.

The introduction of Hydrogen as an emerging energy source will require a considerably significant review of the current training products available in the industry. While research and investigation is underway, new skill requirements will be needed for those working with Hydrogen.

Some enterprises have started using Remotely Piloted Aircraft Systems (RPAS) technology for inspection of gas infrastructure, which requires not only knowledge and skills but also licence to operate. The benefits of RPAS in the gas industry would include higher efficiency, broader coverage in inspection operation, as well as an increase in personnel safety.

8. Identify barriers to employers hiring apprentices and trainees. Are employers using alternative pathways/labour strategies to address these barriers?

The industry reports that these are the potential barriers to hiring apprentices and trainees:

- High cost of training but employees often do not stay within the organisations where they are trained due to other opportunities outside the business or industry. A strategy suggested is creating a collective agreement where trainees/apprentices are required to reimburse the company if they do not stay for the agreed duration of employment.
- Large projects in other industries, such as rail, construction and transportation are absorbing the available skilled workforce. This is difficult to control from within the industry as other industries are competing over the workforce in the labour market.
- Lack of clearly defined career pathways
- Lack of minimum STEM requirements
- Low wages

9. Other relevant activities.

SECTION B

STAKEHOLDER CONSULTATION

An extensive consultation process has been undertaken in the development of the Skills Forecast and Proposed Schedule of Work.

Stakeholders involved in the consultation process;

12 IRC Members

398 AIS UEG Gas Industry Training Package subscribers

8 State Training Authorities

Ongoing Consultation

The AISC seeks to ensure SSOs undertake broad and meaningful (e.g. face-to-face) industry consultation, including rural, regional and remote stakeholders.

Provide details of employers and businesses for each sector and state that SSOs have met with as part of:

1. ongoing engagement and validation with industry and stakeholders
2. collection of industry intelligence
3. promotion of the VET system
4. cultivating and maintaining networks and partnerships with industry including engagement in rural and regional areas.

This section relates to ongoing consultation as well as that during specific training package development work, as per Schedule 3 (Items 3, 12, 14, 18 and 19) of the funding agreement.

Entity Name	Sector	State	Rural/Regional/Remote (RRR)	Activity
Stakeholder name	*Stakeholder sector*	*State, multi-state or national?*	*Is stakeholder located in RRR areas or does it represent RRR interests?*	*SSO activity as per dot points above*
APA Group	Gas	Multi-State	Yes	1,2,3,4
ATCO	Gas	Multi-State	Yes	1,2,3,4

AusNet	Gas	Multi-State	Yes	1,2,3,4
Australian Pipelines & Gas Association	Gas	National	Yes	1,2,3,4
Australian Workers Union	Gas	National	Yes	1,2,3,4
Australian Workplace Training Group	Gas	Multi-State	No	1,2,3
Department of Mines, Industry Regulation and Safety	Gas	State	Yes	1,2,3,4
Deftereos Workplace Consulting	Gas	Multi-State	No	2,3
DeRich Enterprises	Gas	Multi-State	No	1,2
Downer Group	Gas	Multi-State	Yes	1,2,3,4
Downer Utilities	Gas	Multi-State	Yes	1,2,3,4
Energy Safe Victoria	Gas	State	Yes	1,2,3,4
EnerTrain	Gas	Multi-State	Yes	1,2,3,4
Federation Training	Gas	Multi-State	Yes	1,2,3,4
Gas Energy Australia	Gas	National	Yes	1,2,3,4
Jemena	Gas	Multi-State	Yes	1,2,3,4
Kynekt Training	Gas	State	Yes	1,2,3

Linbeck Contractors	Gas	State	Yes	1,2,3
Macarthur Gas	Gas	State	Yes	1,2,3,4
MCD Group	Gas	Multi-State	Yes	1,2,3,4
MPC Kinetic	Gas	Multi-State	No	1,2,3
Multinet Gas	Gas	Multi-State	Yes	1,2,3,4
NSW ITAB	Gas	State	No	1,2,3
NT Acrylics and Plastics	Gas	State	Yes	1,2,3,4
Origin	Gas	Multi-State	Yes	1,2,3,4
Transport Workers Union	Gas	National	Yes	1,2,3,4
Resources Industry Training Council	Gas	State	Yes	1,2,3,4
UEEA Training Council WA	Gas	State	Yes	1,2,3,4
UtiliTrain	Gas	State	No	1,2,3
Zinfra	Gas	Multi-State	Yes	1,2,3

SECTION C

PROPOSED NEW WORK

2020-21

Storage and Reinjection of Gas – Review and development

Advancements in gas storage technology, specifically around the reinjection of gas for storage, potentially pose increased safety risks. The Gas IRC has proposed to review and develop the

skills needs of gas technicians undertaking storage and reinjection of gas work. This project will review the relevant components of the UEG Gas Industry Training Package to ensure the required industry skills are 'fit for purpose' and meet industry regulatory requirements.

Hydrogen Gas Technology -Review and development

Global and Australian trials of emerging hydrogen gas technologies have indicated significant success in reducing greenhouse gas emissions. The Gas IRC has proposed a project to review and develop the skills needs of gas technicians handling hydrogen gas. This project will consider the results of national trials of hydrogen gas technologies, and potentially revise all existing Units of Competency to ensure the benefits of new technology are included within the future skills of all gas technicians.

Data Loggers – Review and development

With the operating platform for data recording technology being standardised across utilities, there is growing need to for data loggers being appropriately qualified to install, disconnect and reconnect these systems. The Gas IRC has proposed a project to develop new Units of Competency to install, operate, disconnect, and reconnect fixed and portable data logger systems for use by gas technicians.

2021-22

Gas Supply Industry Skills - Review

Continued advances in Gas Supply industry technologies, including industrial automation, improved maintenance processes, changing legislative needs, industry standards and practices, and enhanced cross-sector energy distribution skills will all impact on future UEG11 Gas Industry Training Package materials.

The Gas IRC has proposed a project to review industry challenges and opportunities within the Gas Supply industry skills and qualifications. The project will also consider potential changes to imported Units of Competency that support Gas Supply industry technicians, controllers, supervisors and managers through the project. The project will also seek to ensure the COAG Minister's priorities are addressed, through identification and potential removal of obsolete and superfluous UEG Gas Industry Training Package materials from the National Register.

2022-23

Gas Supply Industry Skills - Review

The Gas IRC has not identified Training Package materials for review or development during this forecast period. Where imported elective Units of Competency are identified as either deleted or superseded, the Gas IRC may elect to revise the affected qualification(s) through the IRC Minor Change process.

2020-2021 PROJECT DETAILS

2020-21

Storage and reinjection of gas – review and development

Description

The Gas IRC has proposed to review and develop the skills needs of gas technicians undertaking storage and reinjection of gas work. This project will review the relevant components of the UEG Gas Industry Training Package to ensure the required industry skills are 'fit for purpose' and meet industry regulatory requirements.

Rationale

Gas, like many commodities, can be placed in storage facilities for indefinite periods of time and distributed when required. Gas storage plays a crucial role in balancing supply and demand in most gas consuming countries. Gas is injected into storage during periods of low demand and withdrawn from storage during periods of peak demand. Gas storage has an economic importance mainly during winter periods or at times of high demand when gas price increases. Advancements in gas storage technology, specifically around the reinjection of gas for storage, potentially pose increased safety risks. This project is needed so that the relevant components of the UEG Gas Industry Training Package can be reviewed to ensure the required industry skills minimise safety risks, are 'fit for purpose' and meet industry regulatory requirements.

Ministers' Priorities Addressed

- The project does not propose removal of obsolete and superfluous qualifications from the National Register
- The project will ensure that information is made available about Gas Supply training delivery to training providers through Training Package Companion Volumes
- The project may support individuals moving from acquired skills and knowledge from one state or territory to another
- The project does propose creation of a Unit of Competency that may be owned and used by multiple energy sectors
- The project does not propose the development of additional Skill Sets for the Gas Industry
- The project does not propose the incorporation of existing accredited course materials into the UEG Gas Industry Training Package

Consultation Plan

AIS will:

- undertake consultation on the IRCs behalf with all State Training Authorities and other key national stakeholders
- seek public feedback and input into development of material through the project's duration
- communicate to enterprises, State/Territory Training authorities, State/Territory Industry Training Advisory Bodies, Peak Bodies, Registered Training Authorities (RTOs) and other interested parties, of the establishment of the project
- conduct initial consultation with stakeholders to identify and invite key representatives to establish the Technical Advisory Committee (TAC) and posting information about the project on the AIS website and newsletter
- conduct face to face consultation and engagement sessions as required
- conduct TAC meetings to explain the process and gather comments/feedback
- communicate the process of drafting, identified Training Package materials (Qualifications/ Units of Competency/Skill Sets), verify and validate this material with

stakeholders through email, the AIS website and the AIS newsletter for wider stakeholder involvement, throughout the review process
- continue communication on the project via the AIS website and newsletter.

Scope of Project

This project will review the relevant components of the UEG Gas Industry Training Package to ensure the required industry skills are 'fit for purpose' and meet industry regulatory requirements. The Gas Training Package is planned to be reviewed and developed from June 2020, with a Case for Endorsement planned for submission by 30 October 2021

Training Package

- UEG Gas Industry Training Package

Qualifications

- N/A

Units of Competency

- Two existing Units of Competency –
    - UEGNSG356 - Monitor and operate flow control, pressure measuring and regulating devices for gas transmission
    - UEGNSG507 - Remotely monitor and operate gas transmission flow and pressure measuring and regulating devices
- Up to three new Units of Competency
    - Inject gas to storage facility
    - Withdraw gas from storage facility
    - Balance gas flow in pipeline systems

Skills sets

- N/A

HYDROGEN GAS TECHNOLOGY -REVIEW AND DEVELOPMENT

Description

The Gas IRC has proposed a project to review and develop the skills needs of gas technicians handling hydrogen gas. This project will consider the results of national trials of hydrogen gas technologies, and potentially revise all existing Units of Competency to ensure the benefits of new technology are included within the future skills of all gas technicians.

Rationale

Australia's target to reduce emissions down to 26-28 per cent on 2005 levels by 2030 and to zero emissions by 2050 will see the energy sector collectively facing significant challenges to achieve this target. One technology being considered is the inclusion of hydrogen in regular gas supply. Hydrogen can be safely added to the natural gas mains at concentrations of up to 10 per cent without affecting pipelines, appliances or regulations. Hydrogen trials are already underway in Australia to produce hydrogen using renewable energy and inject it into the gas networks. When hydrogen is burnt, it does not produce any carbon dioxide (CO_2), just water and heat. International and Australian trials of this emerging technology have indicated significant success in reducing greenhouse gas emissions. An additional benefit of Hydrogen Injection into gas distribution networks is 'energy storage'. Electricity generated from renewable sources can be converted to Hydrogen via electrolysis. This Hydrogen can be injected into existing gas distribution networks and 'stored'. This provides an alternative to batteries for energy storage. This mixture of Hydrogen and natural gas may be used later to generate electricity for domestic or commercial usage. Leveraging the results of national hydrogen gas technology trials, the project will potentially revise all existing Units of Competency so all gas technicians can have the skills to benefit from the new technology.

Ministers' Priorities Addressed

- The project does not propose removal of obsolete and superfluous qualifications from the National Register
- The project will ensure that information is made available about Gas Supply training delivery to training providers through Training Package Companion Volumes
- The project may support individuals moving from acquired skills and knowledge from one state or territory to another
- The project does propose creation of a Unit of Competency that may be owned and used by multiple energy sectors
- The project may propose the development of additional Skill Sets for the Gas Industry
- The project does not propose the incorporation of existing accredited course materials into the UEG Gas Industry Training Package

Consultation Plan

AIS will:

- undertake consultation on the IRCs behalf with all State Training Authorities and other key national stakeholders
- seek public feedback and input into development of material through the project's duration
- communicate to enterprises, State/Territory Training authorities, State/Territory Industry Training Advisory Bodies, Peak Bodies, Registered Training Authorities (RTOs) and other interested parties, of the establishment of the project
- conduct initial consultation with stakeholders to identify and invite key representatives to establish the Technical Advisory Committee (TAC) and posting information about the project on the AIS website and newsletter
- conduct face to face consultation and engagement sessions as required
- conduct TAC meetings to explain the process and gather comments/feedback
- communicate the process of drafting, identified Training Package materials (Qualifications/ Units of Competency/Skill Sets), verify and validate this material with stakeholders through email, the AIS website and the AIS newsletter for wider stakeholder involvement, throughout the review process
- continue communication on the project via the AIS website and newsletter.

Scope of Project

This project potentially includes development and review of Units of Competency and Qualifications in the Gas training package to meet the skills needs of gas technicians handling hydrogen gas. The Gas Training Package is planned to be reviewed and developed from June 2020, with a Case for Endorsement planned for submission by 30 October 2021.

Training Package

- UEG Gas Training Package

Qualifications

- N/A

Units of Competency

- Eleven existing Units of Competency
    - UEGNSG121 - Prepare safe design specifications of a gas system
    - UEGNSG204 - Coordinate and conduct gas distribution pipeline repair and modifications
    - UEGNSG228 - Construct and lay large copper gas distribution pipelines
    - UEGNSG223 - Construct and lay steel gas distribution pipelines
    - UEGNSG224 - Construct and lay copper and stainless-steel gas distribution pipelines
    - UEGNSG207 - Coordinate construction, laying and testing of gas distribution pipelines
    - UEGNSG136 - Carry out transmission pipeline construction work activities
    - UEGNSG325 - Coordinate the operation of relevant plant and equipment for transmission pipeline construction
    - UEGNSG333 - Work in proximity of transmission pipeline construction plant and equipment
    - UEGNSG327 - Coordinate transmission pipeline construction operations

- Up to six new Units of Competency
    - Store hydrogen gas
    - Perform safety measures for hydrogen gas
    - Injection of hydrogen gas into transmission pipelines
    - Injection of hydrogen gas into distribution pipelines
    - Handle hydrogen gas
    - Monitor hydrogen in gas infrastructure

Skills Sets

- Three new Skill Sets
    - Storing and Handling Hydrogen Skill Set
    - Injecting Hydrogen into existing pipelines Skill Set
    - Monitoring Hydrogen Skill Set

DATA LOGGERS – REVIEW AND DEVELOPMENT

Description

With the operating platform for data recording technology being standardised across utilities, there is growing need to for data loggers being appropriately qualified to install, disconnect and reconnect these systems. The Gas IRC has proposed a project to develop new Units of Competency to install, operate, disconnect, and reconnect fixed and portable data logger systems for use by gas technicians.

Rationale

Data logging describes a process whereby information generated by a gas detection device is stored in a manner allowing for future retrieval and analysis. Data logger usage within the Australian Gas Supply industry has been growing exponentially over the last five years, with a vast array of instrument manufacturing companies entering the Australian market. With the operating platform for data recording technology being standardised across utilities, there is growing need for data loggers being appropriately qualified to install, disconnect and reconnect these systems. Rapid advancements in data logging technology, along with its versatility across a range of Gas Supply utilities, indicates a need for additional skills for gas technicians within the industry and this project will develop the requisite new Units of Competency.

Ministers' Priorities Addressed

- The project does not propose removal of obsolete and superfluous qualifications from the National Register
- The project will ensure that information is made available about Gas Supply training delivery to training providers through Training Package Companion Volumes
- The project may support individuals moving from acquired skills and knowledge from one state or territory to another
- The project may propose creation of a Unit of Competency that may be owned and used by multiple energy sectors
- The project does not propose the development of additional Skill Sets for the Gas Industry

- The project does not propose the incorporation of existing accredited course materials into the UEG Gas Industry Training Package

Consultation Plan

AIS will:

- undertake consultation on the IRCs behalf with all State Training Authorities and other key national stakeholders
- seek public feedback and input into development of material through the project's duration
- communicate to enterprises, State/Territory Training authorities, State/Territory Industry Training Advisory Bodies, Peak Bodies, Registered Training Authorities (RTOs) and other interested parties, of the establishment of the project
- conduct initial consultation with stakeholders to identify and invite key representatives to establish the Technical Advisory Committee (TAC) and posting information about the project on the AIS website and newsletter
- conduct face to face consultation and engagement sessions as required
- conduct TAC meetings to explain the process and gather comments/feedback
- communicate the process of drafting, identified Training Package materials (Qualifications/ Units of Competency/Skill Sets), verify and validate this material with stakeholders through email, the AIS website and the AIS newsletter for wider stakeholder involvement, throughout the review process
- continue communication on the project via the AIS website and newsletter.

Scope of Project

This project will develop new Units of Competency to meet the industry skills needs for data logging systems used by gas technicians. The Gas Training Package is planned to be reviewed and developed from June 2020, with a Case for Endorsement planned for submission by 30 October 2021.

Training Package

- UEG Gas Training Package

Qualifications

- N/A

Units of Competency

- Up to five new Units of Competency
    - Use data loggers
    - Download and upload data
    - Install data logging systems
    - Disconnect data logging systems
    - Reconnect data logging systems

Skills sets

- N/A