



Australian
Industry and
Skills Committee



UEE HAZARDOUS AREAS

Case for Change

Name of allocated IRC: Electrotechnology
Name of the SSO: Australian Industry Standards

1. Administrative information

For a list of the products proposed to be reviewed as part of this project, please see **Attachment A**.

Name of IRC(s):

Electrotechnology

Name of SSO:

Australian Industry Standards

1.1 Name and code of Training Package(s) examined to determine change is required

UEE Electrotechnology Training Package

2. The Case for Change

For information on the job roles to be supported through the proposed qualifications updates, enrolments data, completion rates, and the number of RTOs delivering these qualifications please see **Attachment B**.

2.1 Rationale for change

This Case for Change relates to AS/NZS 4761.1: 2018 Competencies for working with electrical equipment for hazardous areas (EEHA).

The UEE Electrotechnology Training Package currently contains units adopted from 12 of the 22 clauses contained within AS/NZS4761.1:2018. The 10 not currently included are primarily used by degree qualified Engineers to verify competence to work in hazardous areas.

Initially the 10 units were not adopted because the Standard contains preconditions for assessment (qualifications at AQF 5-7) that cannot be adopted within the unit of competency template.

Industry wants all the remaining 10 units contained within the standard available for delivery within the regulated VET system to ensure a mechanism exists for quality verification of competent persons to undertake design, installation, inspection, maintenance, repair of equipment for hazardous areas. Compliance with the preconditions for assessment that cannot be covered under the Standards for Training Packages will need to be verified outside of the system to ensure compliance with the AS/NZS 4761.1: 2018.

2.2 Evidence for change

AS/NZS 4761.1: 2018 Competencies for working with electrical equipment for hazardous areas (EEHA) sets out the generic cross-industry competencies needed for work associated with electrical equipment for hazardous areas. The competencies are intended for use by any industry sector or enterprise conducting operations where explosive atmospheres are present, and cover design, installation, inspection, maintenance, repair and area classification. They set out minimum requirements for persons to be 'competent' to undertake the related tasks.

AS/NZS 4761.1: 2018 replaced AS/NZS 4761.1:2008. The UEE11 Training Package contained 59 Hazardous Area Units of Competency which were directly adopted from this superseded version of the Standard. Due to being superseded they were deleted from the Electrotechnology Training Package as part of Release 2.0.

New units were developed for UEE Release 2.0 to cover 12 of the 22 clauses contained in AS/NZS 4761.1: 2018. In the Standard each clause is a Unit of Competency and the UEE Training package units are a direct adoption of the clauses within the parameters of what is permissible under the 2012 Standards for Training Packages. Based on advice from the Chair of the Standards Australia Technical Committee responsible for maintenance of the Standard, 10 clauses were not adopted in UEE due to the inability of the Unit of Competency template to prescribe the required AQF level preconditions for assessment (some of the clauses are targeted at Engineers with higher education qualifications). It was proposed that training and assessment of the clauses not adopted would be completed outside of the accredited VET system.

The IRC has received correspondence from Energy Skills Queensland (ESQ) on behalf of nine employers requesting the 10 clauses not adopted in UEE be added to the Training Package. The IRC has committed to

a project to develop Units of Competency to cover the requirements of the 10 clauses so they can be trained and assessed within the accredited VET system.

Advice related to compliance with preconditions for assessment will be included in the unit application to ensure this is met.

2.3 Consideration of existing products

No other Training products cover this unique content.

2.4 Approach to streamlining and rationalisation of the training products being reviewed

The units proposed for development in this project cover specific technical skills and knowledge required to work safely in hazardous areas. Streamlining or rationalisation of this content is not possible given the nature of the work functions covered.

3. Stakeholder consultation

3.1 Stakeholder consultation undertaken in the development of Case for Change

For a full list of industry-specific stakeholders that actively participated in the stakeholder consultation process undertaken to develop the Case for Change, please see **Attachment C**.

The need for development of this content was identified based on direct advocacy from employers that conduct operations where explosive atmospheres are present.

Development of the Case for Change involved consultation with stakeholders via the following communication mechanisms:

- Stakeholder webinars
- Face to Face meetings (Virtual)
- AIS Website
- Stakeholder networks
- Teleconferences
- Emails

The work was outlined during a webinar which included representatives from all States/Territories and regional areas of those jurisdictions. Feedback on the proposed work was invited during the webinar.

The work was posted in the Engagement Hub of the AIS website and feedback invited.

Notification of the opportunity to provide feedback through the Electrotechnology webinar, or in writing through the Engagement Hub, was provided to over 1,100 Electrotechnology sector stakeholder subscribers.

3.2 Evidence of Industry Support

For a list of the issues raised by stakeholders during consultation and the IRC's response to these, please see **Attachment D**.

No objections to the proposed review of the qualification were raised during the consultation process. There is strong support for the development to ensure a mechanism exists for verification of competent persons to undertake design, installation, inspection, maintenance, repair of equipment for hazardous areas.

The work was outlined during a webinar conducted for the Electrotechnology industry on 26 March 2021 which had 80 participants. A broad question about the approach that will be used for the review was posed in the Q & A section of the webinar indicating stakeholder interest in the work. The proposed work was also

detailed in the Engagement Hub of the AIS website for stakeholders to review and provide feedback, and no issues were raised in response.

3.3 Proposed stakeholder consultation strategy for project

Note: For a full list of industry-specific stakeholders who are planned to be contacted to participate in the stakeholder consultation process undertaken for this project, please see **Attachment E**.

Key Industry stakeholders will be identified in consultation with industry regulators, associations, and the Electrotechnology IRC.

A general invitation to participate on the project Technical Advisory Committee (TAC) will be sent to all Electrotechnology subscribers. Targeted invitations will also be sent to known technical experts.

AIS, on behalf of the Electrotechnology IRC, will promote the opportunity to contribute through stakeholder webinars, the AIS website, EDM's, AIS newsletter and public notifications. Stakeholders will also be notified of key milestones throughout the life of the project, including requests for feedback on draft materials.

Stakeholder engagement and consultation will occur over the life of the project via a combination of the following methods:

- Direct engagement: Face to face consultations, Site visits, Phone, emails, video/teleconferencing meetings
- Industry forums and conferences
- Webinars
- Online feedback mechanisms
- STA direct engagement

Given the size of Australia and all stakeholders are not centrally located in major cities, a range of consultation strategies will be used so stakeholders in rural, regional and remote areas, and in smaller jurisdictions have multiple avenues to provide feedback.

This includes but is not limited to, online/video consultation, email correspondence and promotional activity via targeted communications including social media. A recently developed Engagement hub on the AIS website provides a one stop portal for information about how all stakeholders can participate and inform Training Package development work.

4. Licencing or regulatory linkages

The units of competency provide a mechanism to verify the competence of people to work in hazardous areas in accordance with Work Health and Safety regulation.

5. Project implementation

5.1 Prioritisation category

It is proposed that this development be progressed as a Fast-track project and will be published together with several other projects which industry needs fast-tracked.

The need to have these competencies available within the regulated VET system is an urgent industry need.

5.2 Project milestones

Key project milestones include:

- AISC project approval – August 2021
- Technical Advisory Committee (TAC) formed – September 2021
- Draft 1 consultation – November-December 2021
- Stakeholder validation – February 2022

- Quality Assurance – March-April 2022
- Final consultation with states and territories – April 2022
- CfE submitted for approval – May 2022

5.3 Delivery or implementation issues


In the Australian Standard the units will be adopted from have preconditions for assessment (the equivalent of prerequisites) which require qualifications at AQF 5-7. These requirements cannot be accommodated within the Standards for Training Packages and as such a solution to addressing this problem will need to be determined in consultation with the Standards Australia committee responsible for maintenance of the Standard, and State / Territory Regulators.

6. Implementing the Skills Minister’s Priority reforms for Training Packages (2015 and October 2020)

The project submission will support industry’s expectations for training delivery and provide a revised Companion Volume Implementation Guide (CVIG) to support delivery of the new products.

Units will support the verification of competence of degree qualified engineers to work in hazardous areas.

This Case for Change was agreed to by the Electrotechnology IRC

Name of Chair	Larry Moore
Signature of Chair	
Date	14 May 2021

Attachment A: Training Package components to change

Australian Industry Standards

Contact details: David Dixon, Chief Operating Officer

Date submitted: 14May 2021

Project number	Project Name	Qualification/ Unit / Skillset	Code	Title	Details of last review (endorsement date, nature of this update transition, review, establishment)	Change Required
1	Hazardous Areas	Qualification	UEE42620	Certificate IV in Hazardous areas - Electrical	05/Oct/2020 - Transition	Update
1	Hazardous Areas	Qualification	UEE61220	Advanced Diploma of Engineering - Explosion protection	05/Oct/2020 - Transition	Update
1	Hazardous Areas	Unit	New Unit	Manage continuous supervision inspection of electrical installations for hazardous areas	NA	New
1	Hazardous Areas	Unit	New Unit	Conduct a conformity assessment review of explosion-protected equipment	NA	New
1	Hazardous Areas	Unit	New Unit	Assess the fitness-for-purpose of explosion-protected equipment	NA	New
1	Hazardous Areas	Unit	New Unit	Design explosion-protected of electrical systems and installations	NA	New

Project number	Project Name	Qualification/ Unit / Skillset	Code	Title	Details of last review (endorsement date, nature of this update transition, review, establishment)	Change Required
1	Hazardous Areas	Unit	New Unit	Perform compliance audits of hazardous areas and related electrical installation	NA	New
1	Hazardous Areas	Unit	New Unit	Classify areas where flammable gas or vapour hazards may arise	NA	New
1	Hazardous Areas	Unit	New Unit	Classify areas where a combustible dust hazard may arise	NA	New
1	Hazardous Areas	Unit	New Unit	Repair reeling, trailing and flexible cables used in coal mining	NA	New
1	Hazardous Areas	Unit	New Unit	Test reeling, trailing and flexible cables and their attachments used in coal mining	NA	New
1	Hazardous Areas	Unit	New Unit	Inspect, maintain and fit plugs/couplers for reeling, trailing and flexible cables - coal mining	NA	New
1	Hazardous Areas	Unit	New Unit	Verify compliance of repaired reeling, trailing and flexible cables and attachments - coal mining	NA	New

Attachment B: Job role, enrolment information, the number of RTOs currently delivering these qualifications

Please set out the job roles to be supported through the updated qualifications, enrolment data over the past three years in which data is available for each qualification, completion rates for each qualification, and the number of RTOs delivering these qualifications.

Job role	Qualification to be updated to support the job role	Enrolment data (for the past three years)	Completion rates (for the past three years)	Number of RTOs delivering (for the past three years)
341111 Electrician (General)	UEE42620 Certificate IV in Hazardous areas - Electrical	2044	1262	20
312412 Electronic Engineering Technician	UEE61220 Advanced Diploma of Engineering - Explosion protection	22	13	1

Attachment C: List of stakeholders that actively participated in the consultation process of the Case for Change

Name of Stakeholder	Title	Organisation	Organisation type (e.g. Employer, peak body, union, RTO, regulator)	Jurisdiction/town/city (e.g. NSW/Sydney)
State Training Authorities		State Training Authorities	State Training Authorities	All States and Territories
Frances Parnell	Manager	Department of Training and Workforce Development	Other	WA / Perth
Neda Aleksic	Industry Engagement - VET product development	ISACNT	Other	NT / Darwin Nt
Elizabeth Joannou	Training Programmes Manager	Global Sustainable Energy Solutions	RTO	NSW / Sydney
Jakes Jacobs	Industry Workforce Planner	Energy Skills Queensland	Other	QLD / Brisbane
Veronica Mauri	Training and Safety Consultant	V Mauri Training & Safety Consulting	Other	QLD / Hollywell
Paul Govett	Competency Specialist - S&C	V/Line Corporation	Employer	VIC / Bendigo
Greer Novak	Principal Advisor	Electrical Safety Office	Regulator	QLD / Bowen Hills
Kevin O'Shea	President	RACCA	Peak body	NSW / Sydney

Jamie Hall	Technical Support Training Officer	Mitsubishi Electric Australia	Employer	NSW / Rydalmere
Brett Willowwhite	Team Leader Electrotechnology & Plumbing	Charles Darwin University	RTO	NT / Darwin
Nate James	RTO Compliance Officer	V/Line Corporation	Employer RTO	VIC / Melbourne
Geoff Corkery	Training Specialist	Powerlink	Employer	QLD / Brisbane
Joshua Macphail	ElectroTechnology Teacher	TAFE Queensland SkillsTech	RTO	QLD / Bracken Ridge
Cindy Marett	Education, Advisor and Assessor	Energy Safe Victoria	Regulator	VIC / Tarneit
Jesse Collins	Compliance Officer	Energy Safe Victoria	Regulator	VIC / Glen Waverley
Karen Ruppert	RTO Manager	Catholic Education Archdiocese Canberra Goulburn	RTO	ACT NSW / Manuka
Steve Gale	Teacher ICT	The Gordon TAFE	RTO	VIC / Geelong
Claire Bennett	Manager - Learning and Development	A.G.Coombs	Employer	VIC / Moorabbin
Benjamin Hawkins	Policy Manager	AMCA	Peak body	VIC / Burwood
Katie Tunnah	Apprenticeship Program Coordinator	APA Group	Employer	NSW NT QLD SA VIC WA / Southbank

Sue Sheppard	General Manager RTO	Electro Group Training QLD	Employer RTO	QLD / Rocklea
Ryan Flack	Project Engineer/RTO Trainer	Global Sustainable Energy Solutions	RTO	NSW / Sydney
Peter B	Assessor	Vetassess	RTO	VIC / Melbourne
Norma Angeloni Tomaras	Product Manager Electrotechnology	TAFE NSW	RTO	NSW / Mount Druitt
Mark Burgess	National Apprenticeship Officer	ETU	Union	VIC / Gherang
Peter Collins	Program Leader - Electrical	Melbourne Polytechnic	RTO	VIC / Heidelberg
Travis Hayes	Education Manager	Chisholm Institute	RTO	VIC / Melbourne
Pravneel Singh	Technical Manager	Daikin Australia	Employer	NSW / Sydney
Gregory Kempton	Trainer	CIT	RTO	ACT / Canberra
Maria Zarkovic	RTO Manager	V?line Corporation	RTO	VIC / Melbourne
Sue Sizer	Senior Compliance Officer, Education and Assessmen	Energy Safe Victoria	Regulator	VIC / Melbourne
Alexander Newman	CEO	Centre for U	RTO	VIC / Melbourne
Angelo Scanu	Manager	Victoria University	RTO	VIC / Melbourne, Victoria

Jason Aquilina	Electro Teacher	Sunshine College - Harvester Campus	RTO	VIC / North Sunshine
Marie Previte	Skills and Training	Edmund Rice Education Australia - Office	RTO	QLD / Brisbane
Matt Houston	Manager - Field Operations	AG Coombs Servicing	Employer	VIC / Port Melbourne
Harry Melzer	Teacher	Harvester Technical College	RTO	VIC / Melbourne
Darron Febey	Teacher	Tastafe	RTO	TAS / Devonport
John Ingram	Teacher	Melb. Polytechnic	RTO	VIC / Melbourne
Supritha S	Skills Outlook Officer	TAFE NSW	RTO	NSW / Sydney
Neil Roberts	State Inspector - Engineering	Safework NSW	Regulator	NSW / Parramatta
Steve Bryant	Project Specialist	Box Hill Institute	RTO	VIC / Tarneit
Robert Tischler	Electrical Teacher	Boxhill Institute	Employer	VIC / Melbourne
Lachlan Searle	Teacher	Federation TAFE	RTO	VIC / Ballarat
Gayathri Dhanashekar	Education Manager	Chisholm Institute	RTO	VIC / Dandenong, Victoria
Tim Sealey	Assistant Director Analytics and Policy	ACT Govt	Other	ACT / Canberra

Darren Ballard	Electrotechnology Teacher	Federation Tafe	RTO	VIC / Ballarat
Chris Stark	Product Innovation Lead	NECA Education & Careers	RTO	VIC / Carlton
Ian Harrison	Resource developer/teacher	NECA Education & Careers	RTO	VIC / Carlton
Wayne Jones	Technical Training Manager	Melbourne Water	Employer	VIC / Melbourne
Tony Palladino	Executive Officer	NSW U&E ITAB	Other	NSW / Beakfast Point
Luke O'Sullivan	Director	Livewire Training and Consultancy	RTO	NSW / Rozelle
James Charlton	Electrical Teacher	Chisholm Tafe	RTO	VIC / Frankston
Mick Cullen	EO	Future Energy Skills	Peak body	VIC / Clayton, Melbourne
Craig Turner	Teacher	TAFENSW	RTO	NSW / Glendale
Tobias Keating	Developer	NECA Training	Employer RTO Other	ACT NSW QLD / Chullora
Patrick Scharf	Head of Electrotechnology Faculty	Australian Trade Training College	RTO	ACT NSW NT QLD SA VIC / Banyo
Jared Barclay	Electrical training and assessment	NECA	Peak body	NSW / Sydney
David Muller	Head Teacher	TAFE NSW	RTO	NSW / Granville
Jenny James	Teacher	Swinburne Tafe	RTO	VIC / Wantirna

Kyle Mounser	Head Teacher, Electrotechnology	TAFE NSW	RTO	NSW / Newcastle
Gary Ainsworth	Head Teacher Electrotechnology	TAFE NSW	RTO	NSW / Miller
Neil Waixel	teacher	swinburne	RTO	VIC / Wantirna, Melbourne
Adam Riley	Teacher	TAFE	RTO	NSW / Tamworth
Greg Keep	Compliance Specialist	Energy Queensland	Employer RTO	QLD / Brisbane
Tim Bolam	Electrical Reliability Leader	Tomago Aluminium Co. Pty Ltd	Employer	NSW / Newcastle
Blake Mortimer	Engineering support manager	Daikin	Employer	NSW / Chipping Norton
Ian Eggleton	TEACHER	TAFE	Employer	NSW / Newcastle
Nathanael Out	Teacher	Swinburne University	RTO	VIC / Wantirna
Ted Jenkinson	Electrical Teacher	Swinburne	RTO	VIC / Melbourne
Jo O'Mahony	Trainer and Assessor	GOTAFE	RTO	VIC / Shepparton
Dorothy Bakens	Education Consultant	McGraw Hill Australia Pty Ltd	Other	VIC / Richmond
Ian Maguire	Educator	Swinburne0	RTO	VIC / Melbourne
Nick Achelles	Education Consultant	McGraw Hill Education	Other	NSW / Sydney

Russell Feldtmann	Trainer and Assessor	Goulburn Ovens Institute of Tafe (GOTAFE)	RTO	VIC / Shepparton
Steve Hall	General Manager	ECAWA College of Electrical Training	RTO	WA / Perth
Troy Bond	Industry Consultant	UEEA Training Council	Other	WA / Perth
Manuel Barragan	Manager, Strategy and Policy	Artibus Innovation	Other	TAS / Sandy Bay
Craig Robertson	CEO	TAFE Directors Australia	RTO Peak	National
Tim Roberts	Workforce Development and Executive Liaison	Energy Skills QLD	Other	QLD
Energy Skills Queensland representing employers including: Chevron Australia Pty Ltd, Starn Group, Bob Hurnall (Individual Contractor), Lithium Oil & Gas, INLEx, TEXECO, Ex Engineering, Verbrec, Verico Training Services			Employer	QLD
Electrotechnology IRC	Various	Various	Employers, Associations, Unions, Regulators	National

Attachment D: Issues Raised by Stakeholders during consultation on the development of the Case for Change

Stakeholder Type	Issues Raised	IRC's Response to Issues Raised
<p>Registered Training Organisations (RTOs)</p>	<p>From TAFE Directors Australia.</p> <p>I note that this will require HE qualifications as a condition of competency. I would assume therefore that the knowledge components of the unit will simply be 'passed the HE qualification'. I would appreciate being kept informed of the progress of this project</p>	<p>The units involved in this project are a direct adoption from AS/NZS 4761.1: 2018 Competencies for working with electrical equipment for hazardous areas (EEHA). The units (clauses) contained in this Standard already have prescribed Knowledge Evidence requirements. The Higher Education (HE) level preconditions for assessment contained in the Standard will need to be described in the unit in a way yet to be determined – this may include a statement in the Knowledge Evidence if the Technical Advisory Committee for the project deems it appropriate.</p>
<p>Training Boards/Other</p>	<p>From WA UEEA. WA stakeholders agree with the proposed Cases for Change for the UE Training Packages. No stakeholders have reported issues with the proposals.</p>	<p>Feedback supports the need for the review.</p>
<p>State and Territory Training Authorities (STAs)</p>	<p>Thank you for the opportunity to review the draft case for change for the UEE Hazardous Areas. The Victorian STA supports the revision.</p> <p>We note that AIS through the IRC will engage with State and Territory Regulators to ensure their needs are met, therefore the WA STA supports this body of work.</p> <p>The UEE Training Package currently contains units adopted from 12 of the 22 clauses contained within AS/NZS4761.1:2018.</p>	<p>Feedback supports the need for the review.</p> <p>The technical advisory committee will determine appropriate prerequisites for the units within UEE to ensure minimum requisite underpinning skills and knowledge. However, the standards for training packages do not permit adoption of the preconditions as described in the Australian Standard.</p> <p>Members of the Standards Australia Committee responsible for maintenance of the Standard will be engaged in the development process to ensure they are comfortable with the prerequisites used.</p>

<p>The 10 not currently included are primarily used by degree qualified Engineers to verify competence to work in hazardous areas and were not adopted because the Standard contains preconditions for assessment (qualifications at AQF 5-7) that cannot be adopted within the unit of competency template.</p> <p>How is this going to work? Has there been discussions with the other regulators across Australia?</p>	<p>State/Territory Regulators will also be engaged to ensure their needs are met.</p>
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Industry Reference Committee (IRC) Representatives	NIL	NA
Peak Industry Bodies	NIL	NA
Employers (Non-IRC)	NIL	NA
Regulators	NIL	NA
Unions	NIL	NA
Please add other categories as appropriate	NIL	NA

Attachment E: List of stakeholders to be contacted as part of the development of the Case for Endorsement

Relevant Stakeholders identified in attachment C and the following:

Name of Stakeholder	Title	Organisation	Organisation type (e.g. Employer, peak body, union, RTO, regulator)	Jurisdiction/town/city (e.g. NSW/Sydney)
State Training Authorities		State Training Authorities	State Training Authorities	All States and Territories
State Electrical Regulators	Various	Various	Regulator	All States and Territories
Standards Australia	Various Committee members	Employed by a range of relevant organisations	Other	National
RTOs with scope to deliver current qualifications	Various	Various	RTO	All States and Territories
State Industry Training Bodies/Boards/Councils	Various	Various	Other	All States and Territories
Employers (small/medium/large)	Various	Various	Employers	All States and Territories
Peak Industry Bodies	Various	Various	Associations	National and State bodies
Australian Defence force	Various	Australian Defence Force	Employer	National
Electrotechnology IRC	Various	Various	Employers, Associations, Unions, Regulators	National