



Australian  
Industry and  
Skills Committee

# UET TRANSMISSION STRUCTURES

Case for Change

Name of allocated IRC: ESI Transmission, Distribution and Rail  
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):	ESI Transmission, Distribution and Rail Committee
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Name of SSO:	Australian Industry Standards
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### 1.1 Name and code of Training Package(s) examined to determine change is required

UET Electricity Supply Industry, Transmission, Distribution and Rail 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 applies to the construction of transmission structures and line assembly in the Electricity Supply Industry. Transmission structures provide the supply of electricity from generation sources to distribution lines and then on to the end user.

Traditional generation sources are changing with Electricity networks being decentralised due to technological changes, customers taking control of their energy use, and Distributed Energy Resources (DER) such as solar PVs, battery storage, and wind generating units connected to the electricity grid. Transmission structures play an integral role in providing these DER with access to the electricity grids. To connect Australia to these new energy sources, the national electricity grid needs to be expanded and upgraded for greater connectivity of grids on a broader scale, requiring the construction of new transmission structures, also known as Electricity Interconnectors.

Changes to work methods incorporating the connection to DER, the use of licenced equipment and safety practices have not been updated/reviewed for the Qualification *UET20419 Certificate II in Transmission Structure and Line Assembly* and associated Units of Competency since 2012. An overdue review of this essential content is required to ensure it reflects contemporary industry practice.

Renewable projects will play a key role in COVID-19 economic recovery. There are many large-scale Electricity Interconnector projects that are commencing, including Project EnergyConnect, the Victoria New South Wales Interconnector (VNI) minor and HumeLink requiring a workforce skilled in the safe operation and installation of transmission structures incorporating DERs. Without updating the relevant occupational skills standards contained in this Training Package to align with current industry practice, workforce development will be hindered, and delays may occur in the construction of Electricity Interconnectors, reducing the reliability of electricity sources and consumer costs in the long term.

The Qualification and Units of Competency have not been updated since 2012. In 2019 they were transitioned to the Standards for Training Packages as part of UET Training Package Release 1.0. The UET Training Package Release 2.0, submitted to ASIC June 2021, will update the Qualification with current versions of imported units.

### 2.2 Evidence for change

DERs can improve electricity supply reliability and reduce loads on grids at peak times. It is predicted more than 40 per cent of industrial customers will use DERs by 2027, and 30-45 per cent of Australia's electricity will be produced by consumers by 2050. Need

The Australian Energy Market Operator's (AEMO) ongoing report 2020-22 Integrated System Plan (ISP) highlighted "*continued growth of utility-scale renewable generation, energy storage, distributed energy resources (DER), flexible thermal capacity (including gas-powered generation) and transmission development*" as the means to supply sources for the energy sector.

The ISP is integral to the AEMO's National Transmission Network Development Plan (NTNDP) in the review of various transmission reinforcement options for the continued development of the electricity network. This includes the benefits of additional Electricity Interconnectors to end consumers by increasing reliability of electricity from a range of generating sources including DERs.

The Electricity Network Transformation Roadmap developed by Energy Network Australia in collaboration with the CSIRO also supports the construction of new transmission structures and lines between multiple states (Electricity Interconnectors), reporting that they will increase reliability of electricity connected to DERs and reduce customer costs.

The AEMO's 2020 ISP identified Victoria New South Wales Interconnector (VNI minor) as a project required to address cost, security and reliability issues in the National Energy Market. The Australian Energy Regulator (AER) recently approved the VNI Minor, aiming to secure electricity supply with the Liddell power station's closure in August 2023.

AER Chair, Clare Savage, said, "VNI Minor was proposed by AEMO in their role as the national planner responsible for identifying new transmission needs to support the energy system's transition. The project will increase transmission capacity between New South Wales and Victoria and provide consumers with secure and reliable energy supplies."

There are more large-scale Electricity Interconnectors projects, including Project EnergyConnect, the HumeLink and QLD-NSW Interconnector (QNI) due for development that will also provide the same reliability, security and cost reductions for consumers.

The Prioritisation Framework categorises the qualification in this case for change as *monitor*, because of the timeline since it was last updated. This qualification and units of competency were transitioned in 2019 to the Standards for Training Packages but the content has not been reviewed since 2012.

## 2.3 Consideration of existing products

This Case for Change is proposing to review an existing qualification and Units of competency in the Training Package Products only.

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

The Qualification and Units of Competency proposed for review in this project cover specific technical skills and knowledge required by Transmission construction workers to work safely and to erect industry compliant structures. 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 the review of the *UET20419 Certificate II in Transmission Structure and Line Assembly* to align the content with contemporary industry practice was raised by Transgrid when it was clear that the current workforce did not have sufficient skills and knowledge needed for the development of new transmission structures.

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 and 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 on the Engagement Hub of the AIS website and feedback invited.

Notification of the opportunity to provide feedback through the ESI TDR webinar, and the Engagement Hub, was provided to over 640 ESI TDR sector stakeholder subscribers including industry representatives from across the states/territories in rural, regional and remote areas.

### 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 review of the qualification and units were raised during the consultation process. There is strong support of the need of up-to-date products for the ESI TDR industry.

The project work was outlined during a webinar conducted for the ESI TDR industry on 10 March 2021 which had 42 participants. One question about the work was posed in the Q & A section of the webinar. 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 ESI TDR IRC. A general invitation to participate on the project Technical Advisory Committee (TAC) will be sent to all ESI TDR subscribers. Targeted invitations will also be sent to known technical experts.

AIS, on behalf of the ESI TDR 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, phone, emails, video/teleconferencing
- Industry forums and conferences, webinars, online feedback mechanisms
- STA direct engagement

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 qualification does not provide a licensed outcome. Imported units of Competency used within the qualification require the licensed operation of equipment.

## 5. Project implementation

### 5.1 Prioritisation category

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

The current qualification has not been reviewed since 2012 and does not meet current industry practices. The ESI TDR IRC is strongly recommending a fast-track project to ensure that the reviewed qualification meets industry needs and is available as soon as possible. This will enable the industry to address the shortfall of skilled workers requiring training for the construction of new transmission structures (electricity interconnectors) highlighted as part of AEMO's national plan and support the energy system's transition from traditional generation to DERs.

### 5.2 Project milestones

Key project milestones include:

- AISC project approval – June 2021
- Technical Advisory Committee (TAC) formed – July 2021
- Draft 1 consultation – August – September 2021
- Stakeholder validation – September – October 2021
- Quality Assurance – October – November 2021
- Final consultation with states and territories – November - December 2021
- CfE submitted for approval – 31 December 2021

### 5.3 Delivery or implementation issues

No delivery or implementation issues have been identified to date.

## 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.

The Qualification is targeted to those in the ESI TDR sector and the review look at the portability of skills between occupations within the ESI TDR Industry.

The project will also seek to remove barriers to the qualification by removing the weighting points and reducing prerequisite units where possible.

This Case for Change was agreed to by the Electricity Supply Industry, Transmission, Distribution and Rail IRC

Name of Chair

Signature of Chair

Date


## Attachment A: Training Package components to change

Australian Industry Standards Limited

Contact details: David Dixon - Chief Operating Officer

Date submitted: TBA

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	Transmission Structures	Qualification	UET20419Y	Certificate II in Transmission Structure and Line Assembly	25/Sep/2019 - Transition	Update
1	Transmission Structures	Unit	UETTD RTP22 Y	Establish and reinstate a power systems transmission structure work site	25/Sep/2019 - Transition	Update
1	Transmission Structures	Unit	UETTD RTP23 Y	Erect power systems transmission structures	25/Sep/2019 - Transition	Update
1	Transmission Structures	Unit	UETTD RTP24 Y	Erect power systems transmission structure hardware	25/Sep/2019 - Transition	Update
1	Transmission Structures	Unit	UETTD RTP25 Y	Pre-tension stringing overhead transmission conductors and cables	25/Sep/2019 - Transition	Update
1	Transmission Structures	Unit	UETTD RTP28 Y	Set-up and install transmission structure stubs	25/Sep/2019 - Transition	Update

## 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)
(899914) Electrical Or Telecommunications Trades Assistant Transmission Line Assembly Worker"	UET20419Y Certificate II in Transmission Structure and Line Assembly	2,170	33	1
	UETTD RTP22Y Establish and reinstate a power systems transmission structure work site	0	0	1
	UETTD RTP23Y Erect power systems transmission structures	0	0	1
	UETTD RTP24Y Erect power systems transmission structure hardware	0	0	1
	UETTD RTP25Y Pre-tension stringing overhead transmission conductors and cables	0	0	1

	UETTD RTP28Y Set-up and install transmission structure stubs	0	0	0
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## **Attachment C: List of stakeholders that actively participated in the consultation process of the Case for Change**

Active participation has included 41 stakeholders from the following organisations across all states and territories within Australia:

- Industry Reference Committee (IRC) Representatives
- Employers (Non-IRC)
- Peak Industry Bodies
- Unions
- Regulators
- RTOs
- Other/Consultants

## 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
<b>Industry Reference Committee (IRC) Representatives</b>		
<b>Peak Industry Bodies</b>		
<b>Employers (Non-IRC)</b>		
<b>Regulators</b>		
<b>Registered Training Organisations (RTOs)</b>	We might be at the point we have to make subjects related to DER's core competencies (not electives) and incorporated to every level from Cert I through to Engineering degrees? The DER penetration and supply of energy is growing and changing rapidly by a small percentage of the work force, most of the workforce is not involved.	The IRC agrees and proposes that the Transmission Structures review can address the DER integration with the network.
<b>Training Boards/Other</b>		
<b>State and Territory Training Authorities (STAs)</b>		
<b>Unions</b>		
<i>Please add other categories as appropriate</i>		

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

The Case for Endorsement development will involve contacting 41 stakeholders from the following organisations across all states and territories within Australia:

- Industry Reference Committee (IRC) Representatives
- Employers (Non-IRC)
- Peak Industry Bodies
- Unions
- Regulators
- RTOs
- Other/Consultants