

Minutes from the meeting held on Thursday 13 February 2020, at Connexis National Office: Level 13, 40 Mercer Street, Wellington CBD and via Microsoft Teams.

Attendees: Ian Martin, Peter Wilson, David Robertson, Kate Duggan, Antony Ainsworth, Michelle Orum, Dave Edgar, Brett Pou, Andrew Leask, Dave Houston, Warren Hedley, Mike Grumball, Clinton Toi, Craig Moore, Chris Schraders, Dave Rogan, Michele Miller.

(via Teams) Christine Shears, Stephen Griffiths, Angela Bailey, Alan Lyne, Roldan Quilang.

Apologies: Mike Burke, Jo Douglas, Graeme Jackson, Joseph Reti, Jason King.

Meeting opened at 9.30 am with welcome, health, safety and wellbeing notices, and introductions.

Terms of Reference

Mike introduced the Terms of Reference for Electricity Supply Reference Group (ESRG) 2020. Attendees were reminded to disseminate the minutes to their networks and gather feedback to contribute to reviews of qualifications, programmes, and unit standards. Those present endorsed the Terms of Reference.

New programme leading to NZC Electrical Engineering Theory and Practice

Skills Org reviewed this qualification last year and agreed to a strand in Electricity Supply so that all of the practical assessment can be achieved in an ESI context. This qualification has not yet been approved by NZQA.

ESRG therefore developed a new programme leading to NZC EE (L4) version 1, with support from Skills Org. It has been submitted to NZQA and is currently being analysed.

Review: NZC Electricity Supply (Transmission Line Maintenance)

1. **Use of qualification.** NZQA reported four graduates in 2018. In 2019, 10 people completed NZC in Electricity Supply (Transmission Line Maintenance) with a strand in Line Mechanics (Level 4) and 8 people completed NZC in Electricity Supply (Transmission Line Maintenance) with a strand in Structure Maintenance (Level 4).

At present, nine people are enrolled in the Connexis programme with a strand in Line Mechanics; four at Northpower (Recognition of Current Competency (RCC) pathway), two at Broadspectrum (one by RCC), and three at Electrix.

A further 30-45 trainees are near completion (reported by attendees). The increase in use was attributed to Grid Skills' simpler programme, with suitable on-job assessments and engaging e-learning.

2. **Use of programme.** Transpower's current training programme is benchmarked against the Connexis programme. The Connexis programme leading to the NZC ES (Transmission Line Maintenance) is not used by Transpower because some of the unit standards are not applicable to a Transmission Line Mechanic's role while other unit standards contain performance criteria irrelevant to a Transmission context.

Noted unit standards being reviewed to reduce or remove range statements, particularly in the Core Skills domain, so they may be applied in any Electricity Supply context.

For example, there are two unit standards on circuit protection; one for Cable Jointers and one for Line Mechanics. There should be one unit standard for Electrical Workers.

Noted the RCC process is a lot of administrative work and the cost of a TAG can be a roadblock for some companies.

- 3. Demand for qualified electrical workers** is high. The energy profile from Infometrics predicts an increase of 3.1% in the number of filled jobs in the energy sector. This is double the rate of increase of all jobs in New Zealand. Almost 6000 job openings are forecast in the next five years, both new and replacement job openings. There are a high number of new electrical connections predicted in the next 5 – 25 years.

Transmission Line Mechanics are low in number but high in value. This position is technically critical. Workers must be registered with EWRB and their preferred pathway to registration is the New Zealand Certificate. Noted employer licensing is reducing which increases the need for the qualification.

At present NZ is importing a lot of skilled structure maintainers (SMs, aka Tower Painters). Changes to Immigration Policy may reduce the number of SMs available.

4. Qualification details

The Strategic Purpose Statement states the qualification is for people *entering* the Electricity Supply Industry. Therefore, the current programme includes unit standards at Level 2 and 3. Trainees also gain NZC ES (Introductory) (Level 2). This is no longer accepted practice and Connexis recommends using mainly Level 4 unit standards in the programme. The removal of the level 2 and most of Level 3 unit standards would reduce the credit value of the qualification approximately 100 credits. Agreed this represents a reasonable length of training.

Should entry requirement specify NZC ES (Level 2) or demonstrate equivalent knowledge and skills? This would align it with the Distribution Line Mechanic. Which unit standards are required by EWRB in first three months?

Noted it is the asset owners' responsibility to have corrected qualified people. For example, distribution companies are contracting transmission companies to work on their HV assets

Discussed the need to map a programme against EWRB teaching guidelines. Collaboration with EWRB is important as this qualification is a pathway for registration. Noted the employer deems a person competent.

Revised the wording of graduate profile outcomes (refer to draft version 2) and the credit value of each GPO.

[Alan Lyne left the meeting at 10.30 am]

Recommendations from RG:

- Retain strands of Line Mechanic and Structure Maintenance qualification at 90-100 credits.
- Remove 'entering' from SPS.
- Check if Electricity Act requires "responsibility for the work of others". Otherwise this implies a supervisory role which is not part of a TLM role.
- Ask EWRB which unit standards are required by in first three months.
- Change wording of outcomes to increase the difference between strands. (see draft qualification)
- Add NZC ES Introductory, Live Line and Traction Line qualifications to Education Pathway.
- Consult with wider industry about proposed changes, including credit values of GPO.

[Break]

New: NZC Electricity Supply (Live Work)

1. National Certificates to be replaced.

National Certificate in Electricity Supply (Line Mechanic Distribution Live Work Stick up to 66kV) (Level 4) [Ref: 1580] 66 credits.

National Certificate in Electricity Supply (Line Mechanic Distribution Live Work Glove and Barrier up to 33kV) (Level 5) [Ref: 1625] 60 credits

National Certificate in Electricity Supply (Line Mechanic Transmission Live Work) (Level 5) [Ref: 1120] 98 credits.

The three certificates were set to expire and not replaced. This decision was based on industry demand at the time the qualifications were expired and what appeared to be a move away from Live Line work.

From feedback received recently it now appears there is still a demand for qualifications in this area:

- Transpower will require qualifications in Live Work.
- Our network continues to work live so use the quals [National Certificates] (Electra).
- I am interested in the live work qualifications as these are an important part of our business. (Downer)
- The EEA recently published (Nov 2019) ESI procedures (BPG's) to restore confidence in HV Live Work to the ESI. Within the ESI, Network /Asset owners still require these work activities to be conducted (and the interest is increasing). We support the idea of training personnel that understand the requirements created by WorkSafe NZ, HSWA 2015, HSE Act 1992 (Lines and Cables).
- The majority of network owners are working *more* with live lines in order to have less outages in the population area (SADIE). Some companies never stopped working with live lines.
- This is another area where there will be low numbers of graduates, but they are high value in the New Zealand Electricity Supply Industry.

2. New Zealand Code of Electrical Practice

The qualifications meet the requirements of NZECP 46:2003. Attendees noted the Code needs review but it is difficult to know who owns it. Mike will ask EWRB for a contact person this afternoon.

It can be difficult to meet requirements (number or type of exposures within 12 months) to maintain competence, particularly for trainers.

3. Use of qualification

Usage figures provided by NZQA in January 2020 show small but sustained use by one provider during the past 5 years. Reports by Connexis fell sharply in 2017 and 2018 (due to a serious incident) but increased in 2020.

MITA delivered three courses in live work last year but these do not show in the figures because the learners were not signed up to TAGs. Lines and Cables delivered four courses (BETAA).

4. Qualification(s)

- Are three qualifications required, or would one stranded qualification be sufficient?
- Should the qualification name the NZ Code of Practice or the best practice guidelines?
- Must be qualified or registered line mechanic with two years' experience to be selected for the programme. (Entry requirement).

5. Level of draft qualifications

- Based on previous National Certificates:
New Zealand Certificate in Electricity Supply (Live Line Stick Distribution) (Level 4)
NZC (Live Line Glove and Barrier Distribution) (Level 5)
NZC (Live Work Transmission) (Level 5)
- Should the qualification be Level 4 or Level 5? See Appendix and compare the requirements of the job role with the NZQF level descriptors.
- Live Line work is very specialised. Techniques are hazardous. Viewed by ESI as the 'apex' of line mechanic training; can it be viewed as apex without it being Level 5? There is a selection process for suitable trainees, including personality profiling. Only 'top of range' line mechanics are selected for training. Better self-management and higher requirement for problem-solving processes. Glove and Barrier technique is more complex than Stick. How does this job role compare with a Power Technician (Level 5)?
- **Credit value** of NC Transmission was 98 credits, but Grid Skills would prefer a smaller qualification 40 – 60 credits. NC Distribution were 66 and 60 credits, and Distribution representatives present consider this reflects the learning and assessment hours required.
- Noted there will need to be more than one outcome for each qualification but there will be opportunity for change in the next stage of qualification development.

ACTION: Connexis will prepare a consultation document for circulation to the wider industry group via email and the Connexis website.

Meeting closed at 12.45 pm with lunch.