Energy Resources Aotearoa
POWERING A BETTER NEW ZEALAND TOGETHER

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Ministry of Education and Tertiary Education Commission

By email: VocationalEducation.Reforms@education.govt.nz

Submission on the Vocational Education and Training Reforms

Introduction

1. Energy Resources Aotearoa is New Zealand's peak energy sector advocacy organisation. We represent participants right across the energy system, providing a strategic sector perspective on energy issues and their adjacent portfolios. Our purpose is to enable constructive collaboration across the energy sector through and beyond New Zealand's journey to net zero carbon emissions in 2050.

2. We have a long proud history working both at strategic and operational levels in the vocational education and training space. Our workforce development unit was established by the energy industry in 2010. The unit titled Energy Skills Aotearoa addresses workforce challenges for the sector and implements various skill development initiatives. These are supported across a strategic framework of attraction, development and collaboration.

3. Our 2022 industry skills action plan "Building Energy's Talent Pipeline"[1] provided clear workforce development recommendations for the sector. It identifies key barriers, gaps and opportunities for the New Zealand energy workforce and details a transformational plan[2] to address them.

4. This document constitutes our submission to the Ministry of Education, on the redesign of the vocational education and training system consultation. We have provided commentary on all proposals contained in the consultation document, and our own proposal of a vocational training hybrid model in Appendix One.

Context

5. The energy sector plays a vital role in our social and economic development. It powers the economy, provides energy security and keeps our industries humming and our homes warm and dry. It will also do the heavy lifting in the transition to a lower emissions economy, with growing levels of renewable

[1] Building Energys Talent Pipeline
[2] The energy industry skills action plan

energy and emerging new energy industries. An appropriately skilled workforce which can seamlessly shift to meet these changing circumstances will be at the very heart of this.

6. New Zealand's energy transformation and the broader economic imperative of achieving net zero will require substantial change in the size and structure of the energy workforce. The challenge is to meet the future skills needs of the emerging industry and to ensure the current highly skilled energy workforce is not left behind or disenfranchised.

7. We require a fit for purpose vocational education and training system to develop our future workforce. The system must be able to flexibly respond to changing industry environments and skill needs, whilst maintaining certainty to ensure the continuity of quality vocational training.

8. The energy sector, predominantly based in the Taranaki region, relies on the Western Institution of Technology Taranaki (WITT). This is the only institution in this region and serves much of the sector's pre-employment industry training requirements but could do more, particularly on a national scale across work-based training.

Key Messages

Vocational education and training should be tailored to support industry needs.

9. We strongly support a more industry-led vocational education and training system. The energy sector holds a strong interest in shaping the strategic and operational future of New Zealand's vocational education and training system.

10. There is high demand from the energy industry for a vocational education and training sector to support flexible training such as 'apprenticeship and trade' type formal training and accreditation.

11. The energy sector often works in a shift/rotational working environment. Therefore, this requires a flexible vocational education and training system to enable seamless access across classrooms, online and workplace training.

12. Strategic flexibility of the system is also important to respond and manage training demands around global and domestic economic cycles such as recessions and industrial changes.

13. The current Te Pūkenga system allows the sharing of resources across Te Pūkenga, which is extremely useful. It sees some industry assessors working under a contracted assessor model with an Industry Training Organisation (ITO). This arrangement works well for workplace assessment. We do not see an equivalent mechanism in the vocational education and training proposal document which is deeply concerning.

14. We suggest the new entity/model undertake a stocktake of current assessment resources to understand the value proposition in purchasing resource. This would then be shared with new assessors as they come onboard using a contractor-based model.

15. This would save new assessors the burden of having to re-develop and therefore double up on resources that might already be in the market. Obviously, there will be commercial sensitivities to consider, however there will be instances where assessors are due to retire and therefore would be willing to sell and share their materials to benefit industry and learners.

We strongly encourage development of a cross-party consensus to funding and governance.

16. Whilst we acknowledge the need for change in the vocational education and training sector and the deteriorating financial position of Te Pūkenga, a cross-party consensus would help create greater predictability for both the vocational sector and the communities, industries and critically, the learners it serves.

17. We believe the funding system is flawed, and dates back many years, in terms of the quantum of funding bolstered by international education. This was wound down by the previous government and subsequently ended by the pandemic.

18. Funding drives behavior and we do not support a return to the earlier model or policy where ITOs and Institutes of Technology Polytechnics (ITPs) were forced into a competitive commercial environment and ultimately, a financially unsustainable system.

19. Traditionally we have seen this competitive environment driving ITPs towards funding the attraction of learners rather than the training itself.

20. We support the proposal where successful ITPs stand alone and those needing additional support join a federation of ITPs. New Zealand's energy hub is predominantly based in Taranaki and WITT has been identified as a potential federation ITP. We only support this proposal if there are clear pathways for federation ITP's to eventually move toward being independent again.

21. We support a combination of industry, local stakeholder and provider-based *local* governance of ITP's and would like to see more industry involvement in this area.

Recognised prior learning (RPL) is extremely important to our sector.

22. We would like to see a plan in place to identify and then recognise the skills of prior learners and align them to qualifications. This includes proper recognition of the pool of experience already present in our industry for its proven development capacity, integrity, and ability to produce excellent process operators.

23. Likewise, an international vocational qualification alignment for prior learning would be desirable.

24. In our view the best programmes are when local employers are directly involved in the qualification development. There is currently disparity between training on the job and recognised qualifications.

The energy sector is a niche sector with specialist training requirements.

25. A specific "energy industry" standard, qualification body and workforce forecasting body should be established to tailor programmes for our sector. This could include the following areas: natural and renewable gases, electricity, chemical plant, renewable energy such as wind, solar, hydro, geothermal and biomass.

26. Understanding regional and industry workforce demand is essential for any new vocational education and training model, particularly in the regions where there is industrial change. Workforce data and information gaps can impede workforce planning and growth for all stakeholders. This includes education providers, prospective workers, industry and policy makers. Therefore, we would support any new governance/standard setting/qualification development model to allow some resource towards forecasting workforce and industry information data.

27. Planning pathways to employment within industries are essential. We note the absence of any discussion or planning for pathways from secondary school or post-secondary education and would like to see this embedded in the new operating model.

28. We strongly encourage the new system to examine successful models of pre-employment and industry training and support the expansion of these programmes. We recommend a specific case study in process operations training that was developed by industry for industry, with vocational training provider support. This pre-employment model has industry governance and a work placement model with theory delivered at the local ITP, WITT. This is a hybrid model of training delivery, incorporating online, classroom and work placements. This programme could be duplicated across any sectors that are willing to support a work placement model.

Proposal 1: Creating a combination of stand-alone ITP's and a federation of ITP's:

Key local stakeholder support and more industry governance of ITPs is essential.

29. No matter which model/system is configured, the vocational education and training system must be transparent, high quality and trusted.

30. ITPs are of huge significance to the regions in which they operate. Furthermore, they are of great value to logistically challenged regions where the ITP is the only

tertiary institution accessible locally. Taranaki's WITT which services the energy sector is one such ITP.

31. It is evident the current ITP structure/sector is not fit for purpose or financially viable long term; therefore, we understand the need for a restructure.

32. We feel it pertinent to acknowledge the adversity we have observed ITP staff having to endure. This has essentially left both ITP staff and local industry disengaged from the Te Pūkenga national institution.

33. We support the creation of a federation model for financially challenged ITPs, provided each have purposeful plans and a clear pathway towards eventually becoming an independent entity. We are strong advocates for a local stakeholder and industry council of individual ITP's that are operating within a federation model.

34. The energy sector is a niche sector with specialist training requirements that rely on local delivery due to work placement "on job" training assessment requirements. One such programme model worth noting is the energy and chemical plant level 3 delivery for process operations trainees.[3] The energy sector and WITT could expand this model of delivery into other areas of new emerging energy. *See Appendix One* attached for more information about the delivery model.

35. Timing and transparency are critical in any restructure, and we feel the time taken from the initial 2023 announcement of the disestablishment of Te Pūkenga and the release of consultation documents was too long. This has been unsettling and created uncertainty for all stakeholders. Staff retention within ITP's has suffered immensely. We feel there will need to be substantial upskilling for ITP staff to ensure they have a fundamental understanding of their local industries.

36. We suggest resources are provided to upskill or re-educate remaining and new ITP staff. In some cases, industries will have a "101 training" for new entrants to their sector. For example, the energy industry has a "Fundamentals of Energy" one day training delivery that could upskill ITP staff on our sector.

37. Each ITP has its own strengths and capabilities, and it is important that this is identified. The new model should support and enhance these areas and not create an environment where ITPs are looking to venture where delivery is already covered. In other words, ITPs should stick to what they do best and not try to be something they are not (such as a university).

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[3] See https://www.witt.ac.nz/study/engineering-energy-and-infrastructure/energy/certificate-in-energy-process-operations-level-3/

38. Critical factors for a successful ITP federal model include:

    a. Local stakeholder and industry influence or governance direct to ITPs under the model is essential;

    b. a clear plan/pathway for independence should be developed by both the collective governance of the federation with each ITP alongside local stakeholders and industry;

    c. programmes and services should be aligned directly with industry needs locally and there should be a sound process for monitoring and reporting to government to ensure industry's needs are being met and understood; and

    d. ITPs should have an appropriate funding structure to support industry training or at least a hybrid model of industry/classroom training. This is a preferred model for the energy sector.

Proposal 2: Establishing an industry-led system for standards-setting and industry training:

We support a more industry-led vocational education and training system.

39. The energy industry and its workforce need a strong standard setting, qualification development and industry training model with strong governance to support this.

40. The two work-based learning options 2A and 2B, that the new vocational education system is considering are outlined in *Appendix two*.

41. We believe standard setting and arranging training would be better if managed and administered separately. Therefore, we lean towards option 2B.

42. We like that this option also allows ITPs to provide targeted industry training. ITP's moving more towards industry training could provide income to further support them towards their journey to financial viability.

43. An industry-led system provides the opportunity for strategic advice directly to ITPs. This ensures they are moving in the right direction for their local community and industries. We like the option for industry to lead the standard setting, qualification development and workforce forecasting.

44. ITPs, Work Based Learning (WBL) units, Wananga and Private Training Establishments (PTEs) are already well set up to manage trainees, pastoral care and arranging delivery of training and we think this should sit with them.

45. Most other features between the two options are very similar, therefore we have only commented on the differentials.

46. Whichever option is confirmed, either 2A or 2B, we ask that it has the capability to support flexible, efficient training delivery models.

47. It is important to the energy sector that any new industry-led system allows for ITPs to deliver a training model in a hybrid-type situation with a combination of online, classroom, and industry work placements.

48. We want to see learners understand their training pathways and move seamlessly between pre-employment and on-job training.

49. The current Workforce Development Council (WDC) model has been challenging for the energy sector with our workstreams being based within *two* WDCs, Hanga Ara Rau and Waihanga Ara Rau. An energy industry advisory group was suggested by one WDC. However, due to the split sectors within the WDC models it was sidelined, leaving an industry knowledge gap in WDCs. This has caused some of our sector to be disengaged with their WDCs.

50. We ask that the new system consider a specific "energy industry" statutory body be established. This could include the following areas: natural and renewable gases, electricity, chemical plant, renewable energy such as wind, solar, hydro, geothermal and biomass.

51. Renewable energies will continue to grow in coming years. However, there is uncertainty as to future demand over timing for skills, sectors and locations. An energy industry body under the new vocational education and training model could help to future proof this uncertainty. This would provide advice about workforce development opportunities and what training is required, when and where. This would help those key sectors within energy to work together and plan for future vocational training demand.

52. An energy body could also assist in sourcing and analysis of workforce data and information which we have also highlighted under proposal three set out below.

Proposal 3: Changing the funding system to support stronger vocational education:

53. Funding drives behaviour and whilst the changes to the vocational system in 2023 had good intent, in practice the learner and strategy component has been impractical to implement and not served our industry well.

54. Our sector's workforce is changing and transitioning. We need a vocational funding model that has a structure to support the sector, not only as it stands but as we move towards a low emissions future.

55. We strongly advocate for student intake numbers to be flexible so that numbers are reflective of potential employment opportunities within industry. Often, we see ITPs forced to boost the number of student enrolments solely to increase their income. This we don't believe is showing any responsibility towards

student's future employment outcomes. We would like to see more matching of student intakes with actual roles available within industry on graduation.

56. Any changes to funding should not be fully decided before we understand what the final structure will be. We acknowledge that this has already been identified within the consultation document.

57. The proposal reads as though work-based funding rates will be reduced and reprioritised towards standards setting. We are unsure what this will mean for industry training and suggest further work and analysis be provided so industry can make a more informed response in this space.

Robust energy workforce data is critical for workforce planning in vocational education and training.

58. We support the concept of establishing funding arrangements to incentivise ITPs to engage with regional industries. We prefer ITPs to have more flexibility on how their funding is used so they can be flexible in their delivery to support each of their respective regions and local industries.

59. We would hope this function would extend to work alongside the industry training boards or statutory bodies to invest in industry workforce data and information.

60. Meeting the skill needs of New Zealand's energy sector growth and transformation and the broader economic imperative of achieving net zero by 2050 will require substantial change in the size and structure of our workforce. This will require significant workforce planning to ensure we have the right skills coming through at the right time and in the right places.

61. The availability and collection of relevant and robust energy workforce data is critical to ensure all stakeholders can support this transition and therefore plan what vocational training is required and when.

62. Data information gaps will obstruct workforce planning. The energy sector workforce statistics sit across a variety of non-sector specific Australian and New Zealand Industrial Classification Codes (ANZSIC). This does not provide accurate data for the sector. This is particularly relevant for new emerging energies. We note this concern is echoed by our industry counterparts in Australia.

Data information gaps obstruct workforce planning and growth for stakeholders.

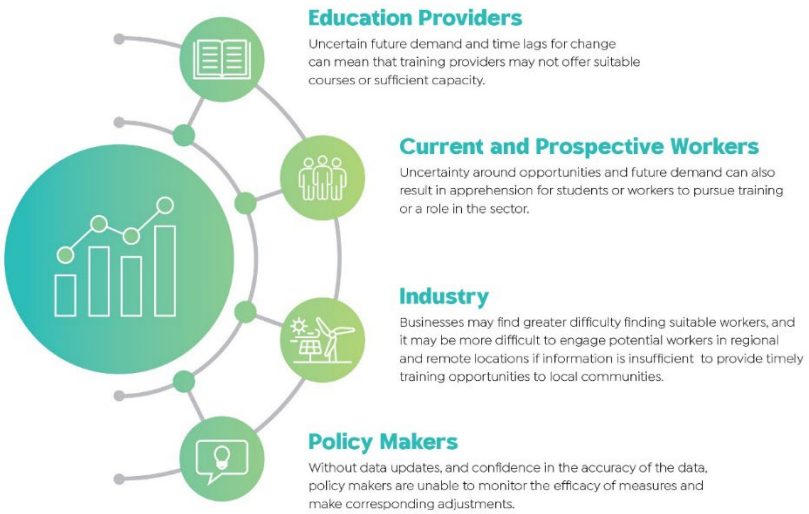


Image supplied by Energy Resources Aotearoa.

Concluding remarks

63. We appreciate the opportunity to offer insight into our areas of interest throughout this consultation. We consider vocational education and training to be a vital component of our industry's future workforce development.

64. We look forward to working alongside the Ministry of Education and the Tertiary Education Commission and welcome further engagement with officials. Please do not hesitate to contact Sheree Long, Director, Workforce Development at sheree.long@energyresources.org.nz should you wish to discuss or clarify any parts of our submission.

Appendix One: An industry/tertiary hybrid training model from Energy Resources Aotearoa

The following information outlines a training programme for the energy sector that is a hybrid online, classroom, industry work placement model.

This programme was developed in 2010 by Energy Resources Aotearoa's workforce development unit in consultation with vocational training providers and wider industry. The programme development was to support a critical skill shortage for process operators felt throughout the sector.

This style of programme could be duplicated across sectors and has been an extremely successful model for the energy sector. It demonstrates a viable model of a successful industry/vocational institutional partnership.

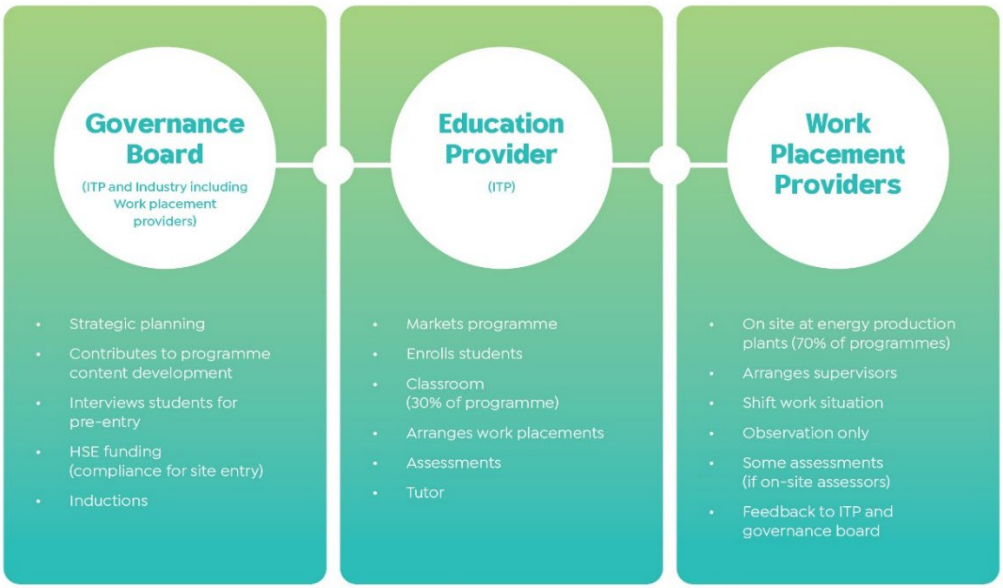
THE TRAINING PROGRAMME:

This unique training programme is for those interested in training towards a career in Process Operations in the Energy industry (both renewables and non-renewables). It has seen a successful employment rate on completion.

The companies involved can be based anywhere in New Zealand with the classroom component delivery in Taranaki at Witt and work placement throughout NZ.

The qualification develops learners' knowledge and skills for entry level employment as Process Operators and can transition into various energy related industries such as Electricity, Chemical Processing, Natural Gas Production, Energy and Chemical Plant and Dairy Production Plants.

The image below sets out the different parties and their responsibilities:



GOVERNANCE BOARD

The governing board consists of Energy Resources Aotearoa as Chair with members from industry as board members with provider WITT and the tutor also at the meetings. The group holds quarterly meetings where various items are discussed including student evaluation and support; enrolment numbers for next year; employment opportunities including how many are available; HSE delivery; tutor appointments; work placement logistics; marketing of programme; industry involvement and stakeholder involvement.

STUDENT ENROLMENT DUE-DILIGENCE

The governance board is diligently aware of the need for a responsible annual uptake of the number of learners and calibre. Industry wants to be socially responsible of not placing learners through training if there are no opportunities for employment on completion therefore have agreed to an entry due diligence process.

To apply for the course candidates must meet certain NCEA requirements and if they do, they progress to an interview with an Industry and WITT panel. At this interview the course expectations can be outlined to learners, and they have the opportunity to ask questions and assess if it is really for them. This process is also beneficial for industry as they have the opportunity to meet the learners and address any concerns early.

This process has proven to be a critical success component of the programme.

WORKPLACE TRAINING

Another integral component of the programme is workplace-based training. At least 60% of the training is conducted in energy company's workplaces. There are many energy companies involved in this component, all of which provide student mentors/buddies throughout their time in work placement.

Work placement training can be undertaken wherever the WP company is and there is a combination of employed and pre-employed participants.

Health and Safety of learners and workplaces is of extreme importance to industry therefore the industry funds an HSE intensive upfront training that the learners undertake prior to beginning the course.

Appendix Two: Proposed Options for work-based learning system

Option 2A

- Statutory 'Industry Training Boards' (a provisional name), with industry and some ministerial governance, would both arrange industry training and set industry standards for sub-degree education.
- They would take over the work-based programmes and learners currently within Te Pūkenga.
- The ability of ITPs, PTEs, and Wānanga to offer work-based learning is yet to be determined.
- Industry Training Boards would undertake some strategic workforce analysis and planning where their industry wished.
- Some industries would not have ITBs and would have education standards set by NZQA instead.
- Industry Training Boards would not provide advice to the TEC.

Option 2B

- Statutory bodies with industry and some ministerial governance would be responsible for standards-setting.
- Te Pūkenga's Work Based Learning division would be divided into new education organisations dedicated to specific industries.
- ITPs, PTEs, and Wānanga would still be able to offer industry training.
- Industry standards-setters would undertake some strategic workforce analysis and planning where their industry wished.
- Some industries would not have industry standards-setters and would have education standards set by NZQA instead.
- Industry standards-setters would not provide advice to the TEC.