Energy Resources Aotearoa
POWERING A BETTER NEW ZEALAND TOGETHER

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Tertiary Education Commission

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Submission on the detailed coverage of Industry Skills Boards

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 and proud history of engagement in vocational education and training at both strategic and operational levels. Established by the energy industry in 2010, our workforce development unit, Energy Skills Aotearoa, plays a critical role in addressing sector-wide workforce challenges and implementing targeted skill development initiatives. These efforts are guided by a strategic framework focused on attraction, development, and collaboration.

3. This submission is provided as a supplementary response on our submission to the May 2025 Industry skills boards (ISB's) consultation and provides specific advice to include energy and chemical as part of the Infrastructure ISB.

Submission

The energy sector is crucial to New Zealand's social and economic development

4. The sector underpins economic productivity, supports industrial competitiveness, and ensures affordable, reliable energy for households and communities.

5. A fit for purpose Vocational Education and Training (VET) model is critical for the energy sector which relies on a highly skilled, safety-conscious workforce to operate in a complex and highly regulated environment. As the sector evolves with new technologies, renewable energy, and decarbonisation goals, the VET system must be responsive, future-focused, and aligned with industry needs.

Rename the proposed Infrastructure ISB to "Energy & Infrastructure" ISB

6. We recommend the Infrastructure ISB be renamed to the **Energy and Infrastructure ISB** to more accurately reflect the industries it represents and ensure strong

alignment with New Zealand's current and future workforce needs.

7. Energy is a critical component of national infrastructure, underpinning everything from electricity generation and distribution to fuel, gas, renewables and emerging technologies. Without explicit recognition of "energy" in the name there is a risk that this sector is overlooked or seen as secondary. This is not an acceptable outcome. The energy sector faces some of the country's most complex workforce challenges and training requirements and it keeps the economy and communities running.

8. Renaming the ISB ensures clarity for industry, government, education providers and learners and signals that energy sits at the heart of infrastructure planning and workforce development. It also reinforces the importance of a connected approach where energy and infrastructure are not treated in isolation, but as interconnected systems.

Energy and chemical should sit within the Energy & Infrastructure ISB

9. The energy system is a tightly integrated chain of assets and operations spanning production, processing, pipelines, generation, transmission and distribution, and downstream offtake for further processing. Fragmenting this system across multiple ISBs risks siloed workforce planning, inconsistent data, and diminished cohesion across training responses.

10. In our 20 May 2025 submission to the Tertiary Education Commission (TEC), we made clear that separating extractives, energy and chemicals from electricity and wind was not workable. We urged TEC to place energy and chemicals, extractives, and the related water sector within the Infrastructure ISB, alongside electricity and wind. This alignment reflects the operational and regulatory interdependencies of these industries and ensures the ISB can respond meaningfully to their shared workforce needs.

11. While we acknowledge the rationale for grouping energy and chemicals, and related sectors under the Australian and New Zealand Standard Industrial Classification (ANZSIC) coding, we recommend shifting to a more industry-centric approach that better reflects how these sectors operate and align in practice.

12. Many of the energy and chemical industries coded under ANZSIC, such as petroleum manufacturers, fertiliser manufacturers, and milk processors, rely heavily on the energy and chemical qualifications and are integral to the wider energy chain. Recognising their significant dependence on energy resources for production ensures workforce planning and industry development are grounded in the realities of how energy is produced, distributed, and consumed across the economy.

The Energy & infrastructure ISB should host all energy and chemical associated ANZSIC codes

13. The following ANZSIC codes use energy and chemical qualifications and are currently under the Manufacturing and Engineering ISB – they should be moved to Infrastructure:

    a) C181100 Industrial gas manufacturing

    b) C170900 Other petroleum and coal product manufacturing

    c) C170100 Petroleum refining and petroleum fuel manufacturing

    d) C183100 Fertiliser manufacturing (large energy users)

14. The following ANZSIC codes also use energy and chemical qualifications and are already under the Infrastructure ISB and should remain there:

    a) D261100 Fossil fuel electricity generation

    b) D261200 Hydro-electricity generation

    c) D261900 Other electricity generation

Engineering design and engineering consulting services could also be considered under an Energy & Infrastructure ISB

15. ANZSIC code M692300 could also be considered to be hosted under the Energy & Infrastructure ISB as these services are integral to the planning, design, and operation of energy sector projects. Engineering consulting spans civil, mechanical, electrical, chemical, mining, process, and pipeline engineering, all disciplines that are fundamental to energy generation, transmission, distribution, and resource development.

16. By including 6923 within the Infrastructure ISB, the full energy value chain is captured, ensuring that the specialist design, feasibility, and technical services that underpin the development and maintenance of energy infrastructure are aligned with workforce planning for the sector.

17. Without this inclusion, a critical part of the ecosystem that enables energy projects to be delivered safely, efficiently, and sustainably would be excluded, creating fragmentation.

Backed by a Collective Industry View

18. This position is not held by Energy Resources Aotearoa alone. In May 2025, a coalition of infrastructure peak bodies, including ourselves wrote jointly to the Minister of Tertiary Education, the Hon. Penny Simmonds, to emphasise that the exclusion of extractives, energy and chemical process operations, and reticulated

gas supply from the Infrastructure ISB was a serious oversight. The letter highlighted that these sectors are inseparable from infrastructure delivery, and their inclusion is essential for coordinated and effective workforce planning.

Avoiding Duplication and Fragmentation

19. Both our submission and the joint industry association letter underscore the risks of fragmentation and duplication if energy and chemicals are placed outside Infrastructure.

20. A unified Energy & Infrastructure ISB has many advantages. Among these it will:

    a) reduce duplication of standards, qualifications, and data collection across ISBs;

    b) enable coherent workforce transition mapping and vocational pathways across the energy and infrastructure system;

    c) align training responses with safety-critical and regulatory obligations common across energy and chemical operations, such as Major Hazard Facility compliance; and

    d) support workforce planning that reflects New Zealand's infrastructure pipeline, decarbonisation priorities, and security of supply needs.

Concluding Comments

21. Energy and chemical; and Engineering design and consulting service industries share operational, regulatory, and workforce contexts with electricity, extractives, and networks. They must therefore be included under an Energy & Infrastructure ISB. Doing so will ensure cohesive and coordinated workforce planning, reduce fragmentation, and strengthen the ability of the vocational education system to respond to New Zealand's energy and infrastructure challenges.

22. We urge Government to take forward this unified approach and reflect it in the Orders in Council that finalise ISB coverage and strategic linkages. This is essential for effective workforce planning, accurate data coordination, and sector-specific training responses.

23. 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.

24. We look forward to working alongside 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 or ***telephone: 021 119 3362*** should you wish to discuss or clarify any parts of our submission.