



12 September 2025

Ministry of Business Innovation and Employment

By email to: resourcesfeedback@mbie.govt.nz

Tēnā koe

Submission on “From the Ground Up: A Draft Strategy to Unlock New Zealand’s Geothermal Potential”

Contact Energy welcomes the opportunity to respond to the Ministry of Business, Innovation and Employment’s draft geothermal strategy. We commend the government’s leadership in recognising the strategic importance of geothermal energy to New Zealand’s energy transition, regional development, and innovation ecosystem.

As New Zealand’s most experienced and largest geothermal electricity generator (635 MWe), Contact Energy is proud to contribute to the country’s renewable energy leadership. Our geothermal assets—including the recently commissioned Tauhara and Te Huka 3 power stations—demonstrate the potential of geothermal energy to deliver reliable, low-emissions baseload electricity. Overall, MBIE’s strategy appropriately focuses on government initiatives; however, we recommend more emphasis on providing incentives for the Geothermal Industry to build its capacity and technology in New Zealand and for export.

In this submission we highlight five topics that should be further developed for the final strategy:

- Ensuring the regulatory frameworks are fit for purpose
- Accelerating field reclassifications
- Expanding government support for geothermal innovation
- Supporting direct use of geothermal heat
- ETS exemptions for captured CO₂ and downstream users

1. Fit-for-Purpose Regulatory Frameworks

We support the strategy’s focus on ensuring geothermal regulatory frameworks are fit for purpose. We consider that many of the existing frameworks are out of date and apply the wrong risk standard to geothermal energy.

The review of the regulatory frameworks is one of the most important actions in the strategy and we urge government to accelerate this work, rather than waiting until 2027 for it to even begin.

This work would be best accelerated by government and industry working together to undertake an end-to-end review of the regulatory requirements and identify key areas to streamline the system and unlock more lower cost geothermal energy.

Specific regulations that should be considered in this process include:

- **The Geothermal Energy regulations 1961** – these are out of date and can conflict with other regulations. We would like to see these aligned with the code of practice for deep geothermal wells NZS2403 (2015)
- **Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999** – the current requirements for the certification of pressure piping is complex and not well defined, the code of practice for pressure equipment is out of date, more recent standards (AS 3788) have not yet been adopted, and there are no clear codes of practice for unattended operation.
- **Health and Safety in Employment (Pipelines) Regulations 1999** – the recent Safe Work Instrument related to geothermal supply and injection are not fit for purpose, the AS2885 standard was intended for hydrocarbon gas and liquid long-distance transmission and is not suited to geothermal pipelines. We would also like to see ANSI/ASME B31.1 acknowledged as the accepted design code for geothermal pipelines.

Further to these known issues we recommend engagement with the industry to identify other regulations that could be reviewed to support geothermal development, one example of this would be the unattended operation requirements – MI5081 (SGS).

2. Accelerating RMA Field Reclassifications and Capacity Unlocking

The stated goal of doubling geothermal energy use by 2040 simply cannot be met using current geothermal technology unless some protected fields, under the Resource Management Act (RMA) are reclassified for development. We recommend that government works with industry to formulate a practical process for reassessing field development risk for current protected or research fields such as Reporoa.

We recommend that the government considers using National Policy Statements to provide regional authorities with guidance on resource classification, allocation and protection. The wider implications and interconnected nature of other NPS also need to be examined for their influence on geothermal development.

This activity is crucial to the central objective of the strategy, it therefore cannot be left to Horizon 3; the work must start immediately. While we recognise the practical sense in utilising all available existing data, this should be driven with the purpose of unlocking new fields, rather than an abstract exercise that must be complete before reclassification is even considered.

Government must also recognise that the costs of this exercise will be material. Further defining the nation's geothermal endowment, or derisking development in more sensitive areas, will likely require further geoscience surveys, a drilling campaign and complex modelling work. We expect that this will run into the tens of millions. While we are happy to provide expertise to guide this work, the risk/benefit trade-off is simply not commercially viable. To overcome this investment hurdle we propose that the government contributes directly to reduce the initial investment risk necessary to prove if a field is suitable for development. Government can then establish a cost recovery model from subsequent developments on the field. This should ensure that the cost to government is neutral over the longer-term, and ensures that all possible geothermal energy will be harnessed.

3. Government Support for Geothermal Innovation

Contact Energy supports the strategy's emphasis on promoting innovation, including supercritical geothermal exploration, enhanced geothermal systems, and advanced geothermal (closed loop) technology. We encourage:

- Continued investment through the Endeavour Fund and Primary Sector Growth Fund to support demonstration projects and R&D.
- Establishing a Geothermal Centre of Excellence to foster collaboration between industry, iwi, academia, and government.
- Financial or tax supports to support industry to develop chemical applications, NCG carbon capture, advanced drilling and completion technology, permeability enhancement, high temperature instrumentation, high temperature materials, geophysical techniques, reservoir logging & testing, and geothermal production system controls.

4. Supporting Direct Use of Geothermal Heat

Employing geothermal directly in industrial processing presents a significant opportunity to save industries threatened by the collapse in natural gas supplies as well as decarbonise industrial processes and support regional growth. We recommend:

- Supporting industries, like greenhouses, to relocate near geothermal resources, by accelerating permitting/zoning processes, tax incentives, assistance with relocation capex, and tailored incentives to keep these facilities viable.
- Exploring ETS industrial allocation settings, which may currently disincentivise geothermal heat uptake.

5. ETS Exemptions for Captured CO₂ and Downstream Users

Geothermal is one of the only renewable baseload electricity generation technologies in the world. However, the process does involve a relatively low level of natural CO₂ emissions which are captured under the ETS. We recognise our obligation to pay for these emissions, and by-in-large it establishes the right incentives for us to invest in technologies, such as CO₂ reinjection or reuse, to reduce the emissions profile. However, we note that the NZ ETS is the only system in the world that currently includes geothermal energy in its scope.

Having said that, there are some current geothermal ETS settings that are creating perverse incentives:

- **Creating a level playing field for captured CO₂.** Contact is actively exploring capturing and refining CO₂ emissions from its Ohaaki geothermal power station to be reused in the food and beverage industry. If we were to enter this market we would be competing against fossil fuel derived CO₂ (Kapuni) and imports of CO₂, primarily from petroleum operations in Asia. However, imported food grade CO₂ is not subject to the ETS. To level the playing field we recommend that geothermal sourced food grade CO₂ is exempt from the ETS. This would create a more robust domestic industry rather than the current cost advantage for imported CO₂.
- **Ensuring that small direct heat users are not unfairly burdened by ETS obligations.** Currently Contact provides geothermal fluid from its reinjection system to several downstream users at no charge for the fluid, such as the Wairakei

Terraces (tourism/bathing) the Huka Prawn Park (aquaculture, tourism and bathing) and Ohaaki Thermal Kilns (wood processing), who contribute to regional economies and cultural preservation. Because ETS liability accrues at the point of generation, this fluid is currently free to those downstream users.

This will change as Contact progressively implements CO₂ reinjection. In this scenario Contact's ETS obligation will fall to close to zero. However, this will require our reinjection systems to contain a mix of CO₂ and reinjection fluids, hence those fluids will now come with a CO₂ component and an associated ETS liability. Consequently, those users will face a substantial new cost, reducing the profitability of their businesses.

We recommend that smaller users of downstream geothermal heat are exempt from the ETS obligations, in the same way as direct users of geothermal heat currently are (if their CO₂e emissions are < 4000tpa).

Conclusion

Contact Energy supports the draft strategy's vision towards doubling geothermal energy use and stimulating service exports. We believe that targeted regulatory reform, direct investment and incentives, as well as collaborative innovation, will propel New Zealand's leadership in sustainable geothermal development.

We look forward to working with government, iwi, and industry partners to realise this vision.

Please contact me at brett.woods@contactenergy.co.nz if you wish to discuss further.

Ngā Mihi



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