



GRAYMONT

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New Zealand Productivity Commission
Level 15 Fujitsu Tower
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Via email: info@productivity.govt.nz

SUBMISSION ON THE ISSUES PAPER *IMPROVING ECONOMIC RESILIENCE*

Thank you for the opportunity to provide a submission on this Issues Paper.

Graymont is a global leader in lime and limestone solutions. Among a myriad of vital applications, lime is used in the purification of drinking water; the treatment of wastewater; in agriculture; in the manufacture of steel, paper, and glass; and in the production of critical minerals and materials necessary for a decarbonised world. As a demonstration of the value of lime, it has been deemed an essential product in every jurisdiction that we operate.

Graymont supports the Paris Agreement and is committed to actively participating in the realisation of its goal to limit global warming to well below 2 degrees Celsius. However, lime is one of the most trade exposed industries globally and has specific decarbonisation challenges.

Given the importance of lime we submit that the value of domestic manufacturing should be recognised as part of assessing economic resilience.

We welcome the opportunity to discuss this matter in more detail.

Yours sincerely

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Graymont submission on the Productivity Commission Issues Paper *Improving Economic Resilience*.

Introduction

Thank you for the opportunity to comment on the Productivity Commission's Issues Paper *Improving Economic Resilience*.

Graymont is a global leader in lime and limestone solutions that are required to produce many of New Zealand's essential products and services, including: clean drinking water; wastewater treatment; remediation of historic mine sites; animal feed; agriculture; precious metals; paper; steel, glass and other infrastructure; and soil stabilisation for roading and subdivisions.

We are a significant local producer of lime and limestone in New Zealand and we are committed to achieving industry leadership in sustainability. Production of lime is carbon intensive and is also at risk of carbon leakage, or, where local production is displaced by imports because of unequal carbon pricing in other jurisdictions. Climate change objectives are a core part of our day-to-day business and our long-term strategy. In 2021 we incorporated decarbonisation into our mission statement: 'Contributing to a decarbonized world by providing essential lime and limestone solutions'.

We submit that the assessment of supply chain risk should include consideration for local manufacturing, especially of essential products. We welcome any further discussion on this topic.

Lime is an essential product in New Zealand

Lime has been produced for thousands of years and is essential in the production of many important products and services that form part of our modern way of life. New uses for lime and limestone are developing all the time, particularly uses that benefit the environment.

Our website details the various markets Graymont services. Below are some local examples:

Environmental solutions: Various dairy and meat processing plants use lime to treat pollutants in their water and waste, as do some mining operations. Historic pollution can be treated using lime and the use of Graymont's product for this purpose is essential to keeping some of New Zealand's streams and rivers on the West Coast healthy. We also supply lime to produce less leachable fertiliser.



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Water treatment: Watercare (and other water utilities) use lime products to treat drinking water, supporting New Zealand's clean drinking water supply. It is also used to treat sewerage sludge which is essential for protecting our environment and the health of both humans and animals.

Steel making: Our main plant in Otorohanga was established primarily to supply the Glenbrook steel mill. Used to remove impurities from the steelmaking process, lime is inherent to a vast range of New Zealand's structural backbone, including the North Island Main Trunk railway line.

Soil stabilisation: Lime is mixed into wet soils in many earthworks projects, turning weak soils into a more solid sub-base. Graymont's product is used in numerous New Zealand projects such as the Central Interceptor in Auckland and various roading and subdivision projects. In Australia, Graymont lime is being used for the Inland Rail project, enabling the in-situ soil to be strengthened which means that thousands of tonnes of aggregates aren't required to be sourced elsewhere and shipped to the site.

Lime is also used in the New Zealand pulp and paper industry and it will be essential for the production of "green wave" minerals that are required for future electrification and renewable energy projects.

Graymont supports New Zealand's regions

Graymont is a value-adding member of the local communities where we operate, with a strong presence in the Waitomo region. A 2018 economic study showed that Graymont's contribution to total wage earnings in the Waitomo and Otorohanga area was 6.9%, largely due to the skilled, well-paid local jobs the company provides. Our approach to community relations is underpinned by our value of taking a long-term perspective, including to our business decisions, our environmental stewardship and the way in which we build long lasting relationships with our various stakeholders.

A recent example of our local community investment is Te Whare Takarangi O Te Kuiti community sports centre which contains two basketball/netball courts, a commercial gym and some general-purpose rooms. Graymont contributed to the development of this facility which was a collaboration between the local high school, the Ministry for Education, local Council and the community. The school uses the facilities during school hours, and the centre is available to the broader community outside school hours. The collaboration, including Graymont's sponsorship, enabled the facility to be twice as big as it would have otherwise been and is the first new public building in Te Kuiti for 30 years.

Lime is an emissions-intensive-trade-exposed (EITE) industry with hard-to-abate process emissions from the innate chemical reaction required to produce lime (see section below). This trade exposure creates additional risks and challenges for local lime production, and we therefore submit that continued access to tailored treatment should be maintained, and even built on, in any reforms made to the ETS so as to maintain lime's local competitiveness and manage carbon leakage risks. Maintaining a local New Zealand supply of lime will help to



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ensure there is no disruption to this essential product and will retain regional jobs, local community investment and economic development within New Zealand.

Lime decarbonisation faces a unique challenge

Lime is produced by heating limestone to high temperatures, releasing CO₂ during the heating process, and thereby producing lime. This calcination reaction is an inalienable fact of lime production. These emissions represent 60-70% of the CO₂ emitted during lime production. Approximately two-thirds of the emissions arise from the reaction of calcium carbonate (“process emissions”) and the remainder arise from the fuel used (“combustion emissions”).

Graymont is continually exploring opportunities to reduce combustion emissions, including exploring opportunities to work with EECA (Energy Efficiency & Conservation Authority). Changing to lower carbon fuels will require a secure, consistent, economic supply at the right quality. This is especially important to ensure the supply of our lime products that are needed for essential customers like New Zealand’s clean drinking water supply. Graymont’s experience in various global jurisdictions has indicated that biomass fuel does not usually consistently meet all of those requirements, however we continue to investigate alternative fuel options globally, including in New Zealand.

Lime is highly trade exposed and at risk of carbon leakage

In addition to being hard-to-abate, lime is also highly trade exposed. Studies in North America and Europe have identified lime as one of the most trade exposed products. We appreciate the New Zealand government’s recognition of this, including continuing to provide industrial allocation that supports local lime production so decarbonisation is still incentivised, but the industry can remain competitive with imported product. With the ongoing phase down of industrial allocation (currently set at 1% per year), carbon leakage risk will continue to rise if other jurisdictions do not follow suit by placing a meaningful carbon price on lime. There are numerous jurisdictions in the Asia-Pacific region who could potentially export lime to New Zealand, displacing local suppliers, and many of these jurisdictions do not currently have a carbon cost associated with their product. A level playing field must be established / maintained to ensure domestic supply of essential products such as lime is maintained.

Graymont supports the Commission’s identification of essential industries that are vital to the functioning of New Zealand’s economy and society for its particular focus. However, we believe that in addition to analysing international supply chains and improving their resilience, it is also important to consider the value of continuing to mitigate the risk of carbon leakage, and the retention of domestic production options.



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Conclusion

Graymont's lime and limestone products are required in the production of a wide range of New Zealand's essential products and services. Lime is playing an increasingly important role in addressing various environmental challenges and is also essential to produce the "green wave" of minerals required for future electrification and renewable energy projects.

- Lime is an essential product in New Zealand
- Lime is emissions-intensive-trade-exposed (EITE)
- Lime emissions are hard-to-abate (two-thirds of the emissions are "process emissions" from the inherent chemical reaction required to produce lime)
- Lime is part of the solution to achieve decarbonisation (lime can re-carbonate under certain conditions)

Graymont recommends that the Productivity Commission considers the value of local manufacturing when assessing supply chain resilience in New Zealand. We welcome any opportunity to discuss these comments further.