

Climate implications of policy assessment: Disclosure sheet

This disclosure sheet provides the responsible department's best estimate of the greenhouse gas emissions impacts for Aotearoa New Zealand that would arise from the implementation of the policy proposal or option described below. It has been prepared to help inform Cabinet decisions about this policy. It is broken down by periods that align with Aotearoa New Zealand's emissions budgets.

Section 1: General information

General information	
Name/title of policy proposal/options shown:	Maintaining domestic cement manufacturing in NZ
Agency responsible for the Cabinet paper:	MfE
Date finalised:	22 April 2026
Short description of the policy proposal:	<i>Minister of Climate Change is presenting policy options to Cabinet about how to maintain domestic cement manufacturing capability.</i> <i>Golden Bay Cement (a Fletcher Building Limited subsidiary) is scheduled to make a decision this year about whether it transitions to an import-only terminal, or not. Whether it retains its domestic manufacturing operations in NZ, depends on if Government agrees to provide support.</i>

Section 2: Greenhouse gas emission impacts

Context

New Zealand's only domestic cement manufacturer, Golden Bay Cement (GB), a subsidiary of Fletcher Building Limited (FBL), faces viability challenges due to a combination of emissions costs under the NZ ETS, reducing IA over time (IA phase out) and competition from imports that do not face equivalent emissions pricing, and limited near-term options to abate industrial process emissions. These concerns have led it to signal a possible shift to an import-only model by 2030 without greater policy certainty. Closure of domestic production would be expected to lead to emissions leakage and impact supply chain resilience, employment in Northland, and reduced waste diversion. These outcomes are not desirable.

Temporarily suspending GB's surrender obligations helps meet their investment hurdle to continue domestic production, with conditions

In recognition of GB's challenges, and the likelihood of domestic closure without government intervention, the Government has proposed **temporarily suspending GB's surrender obligations for clinker emissions**.

Temporarily suspending some of GB's NZ ETS obligations improves the investment case to keep production in NZ and reduce emissions, over the alternative (import-only model and increased global emissions).

An agreement between the Government and Fletcher Building Limited (owner of GB) will be negotiated to ensure certain outcomes are achieved. For example, GB keeps domestic cement manufacturing in NZ and pursues further decarbonisation, and the temporary suspension ceases when international competitors face an equivalent (agreed) carbon price.

Multiple options have been modelled in this CIPA including:

- Base case/ Status quo: Golden Bay Cement (GB) transitions to an import only terminal that is operational by 2030.
- Government intervention via **temporarily suspending GB's surrender obligations for clinker emissions**
- We have used MfE 2025 projections data for comparison.

Overview of impacts- Base case/status quo

In the base case (see table 1 below), almost all emissions (except for a very small amount of electricity related emissions) leave NZ to another jurisdiction ie, emission leakage. If this occurred, emissions counted against domestic budgets and targets would be reduced over time and this would have implications for the NZ ETS cap (see discussion and table 3 below for more information). A previous piece of work, an unpublished BCA feasibility study on the cement sector completed in late 2025 found emissions leakage from domestic cement manufacturing moving outside of NZ, could result in additional global net emissions of 4.3 Mt CO₂e by 2050. This is likely due to GB using a more emissions intensive system overseas to produce clinker for the same volumes of cement, or greater, which they supply to the NZ market now.

As GB is an end market for diverted waste, wood waste that is unable to be diverted for GB energy use, has been assumed to be sent to landfill, and these represent domestic emissions in the base case. Tyres used by GB would be stockpiled and likely exported.

Overview of impacts- intervention

In the intervention case (see table 2 below), approx. 10.5 Mt CO₂e of emissions are modelled as suspended from NZ ETS obligations from 2031-2050, this is total GB emissions. If a temporary NZ ETS suspension of obligations was progressed only a proportion of emissions subject to surrender obligations would be exempted for a conditional amount of time (e.g. from 2031-2040 or until imported cement emissions are priced either by BCA, or another jurisdictions' NZ ETS). Therefore, this figure represents a possible upper limit to the volume of emissions that would be suspended from NZ ETS pricing signals.

Compared to most recent 2025 projections by MfE (which now represents an out-of-date BAU, see below for details), emissions from temporarily suspending GB from the NZ ETS are different than what was projected out to 2050, and trigger the CIPA threshold. The base case presents a departure from 2025 projections and exceeds the CIPA quantitative threshold.

Table 1. Base case: GB Transition to an import only terminal s 9(2)(b)(ii)

Sector	Greenhouse gas emissions Mt CO ₂ e				
Base case*	s 9(2)(b)(ii)	2036–40	2041–45	2046–50	Cumulative impact
Industry (incl. energy and electricity**		-2.80	-2.80	-2.80	-11.20
Waste***		0.16	0.16	0.16	0.48
Total		-2.64	-2.64	-2.64	-10.56

Figures are rounded.

s 9(2)(b)(ii)

** * Majority of emissions are from clinker industrial processes, energy from thermal heat is the majority of remainder of emissions. Electricity emissions make up a very small proportion of overall emissions (0.2 Mt CO₂e 2031-2050), and this does not substantially change between base case and intervention scenarios and has not been included in calculations.

*** Estimated emissions from wood waste being sent to landfill under status quo, instead of burned as an alternative fuel. Figures represent a high end of estimates. See 'Additional Information' below, for assumptions.

Table 2. Intervention case: Suspension of NZ ETS obligations to maintain domestic cement manufacturing capability (compared to current projections)

Sector		Greenhouse gas emissions Mt CO ₂ e					
Intervention case: suspend NZ ETS obligations		2026–30	2031–35	2036–40	2041–45	2046–50	Cumulative impact
Total *		No change	2.73	2.73	2.73	2.73	10.90
Comparison to 2025 projections							
2025 projections**	Total	No change	3.47	3.47	3.47	3.47	13.88
Difference between preferred option and 2025 projections	Total	No change	-0.75	-0.75	-0.75	-0.75	-2.98

Figures are rounded

* From 2032 GB Investment results in approx. 0.75 Mt lower emissions per budget period, compared to what was projected in 2025, this efficiency gain is added into calculations from 2032 onwards.

** 2025 projections assume that cement emissions remain constant and stable from 2031-2050 with no efficiency gains. Calculations include both electricity and industrial process emissions from cement manufacturing.

Impact on EB3

The current EB3 shortfall of approx. 9 Mt CO₂e, could be reduced by 0.75 Mt CO₂e, to approx. 8.25 Mt CO₂e. By contrast, the closure (base case) would have reduced the shortfall by around 3 Mt CO₂e through emissions leaving NZ (rather than through abatement).

In the intervention case, approx. 2.73 MT CO₂e in EB3 would move outside the NZ ETS; therefore, these emissions are not able to be managed directly via the NZ ETS settings process. However, via the Government's negotiated agreement with GB, approx. 0.75 Mt CO₂e of potential emissions reductions is estimated to be achieved over EB3 (as compared to 2025 projections) and in each subsequent budget period (details on abatement are outlined in section 3).

NZ ETS settings decisions are separate decision to the NZ ETS obligation suspension, although the suspension has consequences for that process as follows.

Adjustments may be needed to the NZ ETS cap and the NZUs available for auction to account for the reduction in GB's clinker emissions under the cap, and likely reduction in industrial allocation that would have been provided to GB for clinker manufacturing. It is likely that if the cap is reduced down correspondingly, this will drive up the NZU price, therefore shifting more of the costs of meeting EB3 to other NZ ETS participants/sectors. If the cap is not reduced or not does not precisely account for GB's fewer emissions, this would increase the risk of not meeting EB3 but reduce costs for other participants.

As outlined in comparison to the intervention case, the 2025 projections now represent a hypothetical scenario where GB stays and makes no further investments or changes. GB has communicated to

officials that this will not be the case going forward - it will either transition to an import-only terminal or stay and undertake a substantial investment programme changing its future emissions profile. Therefore 2026 projections will need to be updated once decisions are finalised.

Section 3: Additional information

The main driver(s) of emission volumes for each of the key sources of impact

- Emissions are primarily driven by the industrial process of clinker manufacturing known as 'limestone calcination'. This chemical process requires a large amount of heat and the outputs of the high temperature chemical reaction include large amounts of carbon dioxide. The clinker industrial process emissions are approx. 65 percent of GB's total emissions according to MfE modelling, and energy used for heat makes up the remainder of emissions, with a small amount of electricity used for grinding and other processes.
- If domestic cement manufacturing is maintained-over time, emissions intensity from clinker production is projected to decrease per unit due to GB's planned emissions reduction investment if it maintains its domestic cement manufacturing operations. This includes the introduction of Supplementary Cementitious Materials (SCM's) such as slag (a by-product of other industrial processes outside of NZ) being introduced into the clinker mix. Slag is expected to decrease clinker emissions per output unit of cement. Slag is imported from overseas jurisdictions and therefore any associated emissions occur overseas, so are excluded from both our targets/emission budgets and the NZ ETS. s 9(2)(b)(ii)
- Emissions and other efficiencies from GB investment are included in the intervention case. This is the driver of differences between emissions when compared to 2025 projections, which do not assume further plant investment or efficiency gains by GB overtime.
- Tyre and wood waste are currently diverted from landfill and used by GB as supplementary thermal fuel to reduce coal use. The use of these materials reduces GB's overall emissions by avoiding use of coal, resulting in fewer overall emissions. Officials have assumed this will continue where domestic cement manufacturing is retained in NZ. However, if GB transitions to an import only terminal, tyres would be stockpiled and potentially exported (no direct emissions impact), and officials have assumed for the purposes of this CIPA, that wood waste is landfilled and therefore generates emissions; this has been separately quantified (see assumptions below).

Implications for Emission budgets, Emissions reduction plans and the Emissions trading scheme

- The Minister of Climate Change preferred option is to suspend a proportion of GB emissions from the NZ ETS. This carries several implications, which are described in table 3 below.
- ERP2 implications: While the decision to intervene and temporarily suspend GB emissions obligations doesn't affect emissions during EB2, it is likely to negatively impact market confidence for a period of time during EB2. s 9(2)(g)(i)
- Managing GB's potential closure is a complex decision for Ministers necessarily involving the balancing of several impactful trade-offs. By proceeding with a temporary suspension of obligations, Ministers are accepting the potential impact on NZ ETS market confidence in favour of avoiding additional negative economic.
- Refer to 'Regulatory Impact Statement: Maintaining domestic cement manufacturing in NZ for further details on the costs and benefits of the policy proposal.

Table 3 NZ ETS implications of base case and NZ ETS suspension of obligations

Impact to Emission budgets	Impact to NZU supply/ demand and stockpile	
EB3 (2031-2035)	Supply	Demand
Base case- GB transition to an import-only terminal		

Net emissions are reduced by ~3 Mt CO₂e than projected during the EB3 period. The reduction in net domestic emissions would reduce the current shortfall for meeting EB3 of 9 Mt CO₂e (central projection). Global emissions are expected to increase from EB3 onwards, due to increased overseas production of more emissions intensive clinker manufacturing (2025 MfE Cement sector BCA feasibility study, unpublished). While increased global emissions and the warming associated with emissions leaking out of NZ are not factored into EBs or targets (target accounting), emissions leakage is not an intended outcome of the CCRA.	s 9(2)(b)(ii) there is an automatic reduction in GB's IA s 9(2)(b)(ii) (production of an eligible product decrease to zero). Scale and timing of impact on other NZU supply depends on foresters' response to reduced demand (e.g. decrease in supply of units through fewer trees planted), and/or any subsequent decisions by Minister on NZ ETS settings. For EB3, government has a choice whether to auction the freed-up units or not.	s 9(2)(b)(ii) GB is not a major source of demand for NZUs, due to IA and their stockpile of units. s 9(2)(b)(ii) shifting to an import model removes the non-IA NZU demand that otherwise would have occurred from GB.
Intervene: Maintain domestic cement manufacturing through temporarily suspending emissions from NZ ETS		
Cement manufacturing emissions continue to be factored into emission budgets, broadly in line with 2025 projections (which do not predict a closure). GB would proceed with emissions reduction investment according to the terms of a negotiated agreement with Government outlining conditions associated with a temporary suspension of NZ ETS obligations, which enables GB to proceed with investment resulting in (amongst other things) a reduction in emissions (0.75 Mt CO₂e per budget) as described earlier. In EB3, the 0.75 Mt CO₂e slightly reduces the current shortfall of 9 Mt CO₂e to 8.25 Mt CO₂e. Suspending emissions from the NZ ETS reduces the total number of emissions to manage within the NZ ETS cap. This may also reduce the available auction units during EB3, as to meet EB3 fewer emissions can occur under the cap, accounting for GB's emissions now outside the NZ ETS (assumes cap is reduced in this separate NZ ETS settings decision). Emissions outside of the NZ ETS still count towards budgets and the 2050 target. While emissions outside of the NZ ETS can be difficult to reduce as no specific emission reduction policies apply to them, GB has agreed to make cement production emissions reductions despite being suspended for clinker emissions.	IA would be reduced to some extent. If GB's emissions costs are removed this will decrease the NZU supply from IA and reduce supply from other sources i.e. forestry and auctions. How quickly forestry supply might adjust is unclear. The pace of adjustment is important for managing supply affects. The reduction in the NZ ETS cap will be larger than any reduced IA from an suspension. This will exacerbate a forthcoming issue in the 2030's where there is limited auction volume and a volume of IA that could exceed the NZ ETS cap in the same period. ¹	If GB's emissions costs are removed this will remove its non-IA demand from the market altogether (currently nil; increasing from 2030 as IA reduces and stockpile depletes). s 9(2)(b)(ii) having a negligible impact on prices. There is likely to be a market reaction resulting from the announcement/ implementation of an suspension and this may impact prices on the secondary market. The market is likely to react to reduced future demand for NZU's s 9(2)(g)(i)

¹ The Minister has previously been advised of this issue, and that new measures are likely needed to address this.

However, keeping GBs hard to abate emissions in the NZ ETS would continue providing some demand for NZUs (at the margins).		
--	--	--

Additional information	
Have you modelled multiple scenarios or options? Multiple options have been modelled including: • Status quo- GB transitions to an import only terminal s 9(2)(b)(ii) • Intervention (NZ ETS suspension)- GB maintains domestic cement manufacturing capability through suspending emissions from the NZ ETS • We have used MfE 2025 projections data for comparison. Have you had the modelling peer-reviewed by anyone else? • CIPA modelling for this disclosure has been internally quality assured by suitably qualified officials. • Deloitte report 2026 (unpublished Classification I) provides an independent view on GB's financial viability, impacts of the options and the closure, and GB's own emissions data. Base case and intervention emissions modelling in this CIPA relies on emissions figures provided through an open book process with GB undertaken by Deloitte in early 2026. Officials have considered the Deloitte report and are comfortable with the approaches taken. • BCA Feasibility study 2026 (unpublished): Electricity data and modelling for this work including estimated increase in net emissions resulting from emissions leakage, was based on recently completed but unpublished MfE feasibility study on Border Carbon Adjustment (BCA) for the cement sector. This feasibility study was completed in 2025, and QA completed internally by suitably qualified officials. The study was also based on concrete NZ data shared with MfE during targeted engagement with the sector in 2025. This report references the emissions intensity of cement produced overseas. How did you develop the model or approach? Is it following best practice, is it bespoke, or something commonly used (ie, tried and tested)? • Emissions modelling is primarily based on Deloitte's report on GB's future production and planned emissions reductions. Other modelling (e.g. for electricity) used BCA study data sets. A simple excel sheet with high-level modelling was provided for estimated wood waste emissions. • Inputs included the BCA report and recent data shared by GB relating to the emissions intensity, composition of materials and inputs, and production volumes for the clinker chemical process. • Modelling covered period 2031-2050, and included GB's responses to the NZ ETS price, demand for their cement, site capacity, and efficiency improvements. General modelling assumptions: • Emissions modelling from Deloitte uses GB source data. Deloitte found input forecasts that informed projected emissions reasonable. • Deloitte considered that the emissions assumptions used by GB were reasonable, grounded and coherent. Officials discussed assumptions and sensitivities of modelling with Deloitte and were reasonably comfortable with their responses and working. • The electricity modelling used the BCA study's 'central' NZU price assumption as this provides a balanced estimate of future NZ ETS price. This was a different estimate than GBs. • Other assumptions included zero overseas pricing for cement, no free allocation of overseas units, s 9(2)(b)(ii) and that all domestic cement production is consumed locally. Other key input assumptions <u>Base case: GB transition to an import only terminal</u> - No change to CCRA/NZ ETS policy - Import only terminal operative s 9(2)(b)(ii) - Industrial allocation reduces according to reduction in domestic emissions - Carbon leaks to an overseas jurisdiction with less emissions efficient systems - Production level remains consistent	

- Wood waste emissions go to landfill instead of being used as alternative fuel: A combined emissions factor for wood-waste was used (with LFG), as proportions of treated and untreated wood-waste used by GB are not known emissions are estimated based on a high-use case and range from 0.1 to 0.16 Mt CO₂e per 5 year period; wood waste volume data was sourced from three WMF funded projects diverting wood-waste from landfill to GB. The MfE Measuring emissions guide 2025 emissions factors were used for this calculation.
- GB currently has no demand for units due to its stockpile and IA before 2030. A closure would lock in zero future demand. Once government auctions stop, forestry will continue being the main source of supply for NZUs, according to demand for them.

Intervention: maintain domestic cement manufacturing capability via obligation suspension

- GB maintains domestic cement manufacturing capability after relief is provided, production continues s 9(2)(b)(ii)
- GB investments result in efficiencies, including for product emissions (i.e. reduced product emissions intensity)
- Production lifts as a result of efficiencies but overall gross emissions don't rise, as per unit emissions achieve some emissions efficiencies
- GB maintains use of alternative fuels (diverted wood waste and tyres) instead of coal
- First order effect: GB will have either no, or low demand for NZUs purchased from market, due to receiving greater IA, or having obligations suspended for a large proportion of their emissions.
- Second order effects: intervention s 9(2)(g)(i) market responses may include reduce demand for NZUs, and lower prices.
- Further assumptions to be updated depending on Ministers preferred option

Sensitivity analysis: what variables/inputs/assumptions have a large bearing on results?

- Emissions price
- IA assistance rate
- Cement prices

Any important limitations or uncertainties underlying the analysis

- s 9(2)(b)(ii) it is unclear whether GB production will remain at current levels until the import terminal is opened, as we have no further information on this period of time, we have assumed emissions levels remain the same until import terminal is operational.
- The calculation around wood waste emissions from landfill contains several uncertainties due to lack of available information on exact volume and type of wood waste GB uses. Officials have not had time to calculate the net difference between burning of wood waste and tyres, vs landfilling and stockpiling wood waste and tyres respectively.
- While decarbonisation and other efficiencies as a result of GB investment are included in the intervention case figures, there's a possible small discrepancy between projected emissions (based on GHG inventory information) and modelled suspended emissions (based on data from Deloitte report). Officials believe this may be due mainly to the way emissions are reported (e.g. differences between Deloitte report and Inventory reporting). However, in the time available we have not been able to fully investigate this.
- In the time available officials have not been able to quantify the embodied emissions from slag.

Carbon leakage

- In the base case there is projected to be ~10.5 Mt CO₂e of carbon leakage to other jurisdiction(s), this is based on GB emissions data from Deloitte report. The BCA study also found that if cement emissions leaked out of NZ there would be a net global increase of emissions of approximately 4.3 Mt CO₂e by 2050. In both cases the leakage is assumed to occur s 9(2)(b)

Section 4: Quality assurance

Quality assurance

The Climate Implications of Policy Assessment (CIPA) team has been consulted and confirms that the CIPA requirements do apply to this proposal. The preferred option of suspending NZ ETS obligations is estimated to result in emissions reduction of 0.75 MtCO₂e over each emissions budget period through to 2050, relative to the 2025 projections exceeding the CIPA emissions budget three significance threshold of 0.25%,

Quality assurance

or 0.6 MtCO₂e. By comparison if Golden Bay shifts to an import-only model it would deliver reductions against New Zealand's emissions budgets (-2.64 MtCO₂e per budget), but would result in carbon leakage from offshore production, with global net emissions estimated to increase by 4.3 Mt CO₂e to 2050 due to higher-emissions overseas cement. The proposed policy change does pose a material risk to achieving the ERP2 action of supporting a credible NZ ETS and broader market confidence. The suspension is likely to negatively impact market confidence for a period of time during EB2, but the risk can be somewhat mitigated with appropriate messaging.
