

## Bioenergy Association of New Zealand (BANZ)

### Submission to the Ministry for the Environment

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### Executive summary

BANZ welcomes this consultation and considers it broadly moves the organics industry in the right direction, towards sustainable circular principles. In particular, we support:

- The focus on prioritising food waste and food loss reduction at the top of the waste hierarchy.
- Support for councils and businesses to establish source separation of organic materials.
- The work to improve the accuracy and credibility of landfill emissions measurement in order to incentivise more sustainable material flow.

The submission document represents the views of the Bioenergy Association New Zealand and its members.

#### **Our central argument throughout the submission:**

**Anaerobic digestion (AD) belongs above both composting and landfill in the waste hierarchy for suitable organic feedstocks** — because of the higher value and range of products it recovers, and because it controls fugitive emissions far better than either alternative. AD simultaneously recovers renewable energy (biomethane displacing fossil gas), recycles nutrients (digestate displacing synthetic fertiliser), and recovers biogenic CO<sub>2</sub> and heat. Composting recovers a single low-value commodity soil conditioner; a landfill is a linear disposal pathway with limited ability to recover value. The policy framework should recognise and reward this difference between technologies (AD > composting > landfill) in order to achieve the best outcome for New Zealand and follow international best practice modelled by the EU, Great Britain and other developed economies.

#### **Our position on ETS coverage (developed in full in section 4).**

**BANZ does not support extending the ETS to anaerobic digestion or other sustainable organic-waste processing.** The ETS is an instrument for deterring a harmful behaviour; the coverage question should therefore turn on whether a deterrable behaviour exists. For landfill, it does — the disposal of divertible organics to a sink that emits methane. AD, on the other hand, is itself the outcome the waste hierarchy is designed to promote, and its avoided emissions (landfill methane forgone, fossil gas displaced by biomethane, synthetic fertiliser displaced by digestate) reliably equal or exceed its proportionally low fugitive emissions and an AD facility's net position under the ETS would be zero or negative. Extending the scheme to AD would therefore raise no revenue and change no behaviour, while introducing three problems: (1) it would require a mechanism to credit avoided emissions that the NZ ETS does not contain (the scheme rewards only permanent removals, presently forestry); (2) it would compel a deeper scrutiny of the landfill gas-capture accounting, and (3) it carries a risk of creating perverse results of penalising the enclosed, low-emission option while other options (e.g. landspreading) remains exempt.

Where fugitive-emissions performance is the concern, the proportionate response is information provision first (AD operators already have a strong commercial incentive to minimise leakage) with the ETS held in reserve as a credible instrument should the data show it is warranted. If MfE nonetheless proceeds toward

inclusion, the essential safeguards such as net-of-avoided-emissions accounting, materiality thresholds, parity with composting, and coordination with existing frameworks are set out at section 4.2(c).

### **The mechanism gap that must not be overlooked**

**The landfill levy is absent from this consultation, and its absence is consequential.** Extending the ETS across the waste sector does not, of itself, remove the emissions-based signal that favours diversion: AD's near-zero obligation set against landfill's substantial one still opens a cost gap, since the two face a common carbon price but very different emissions. That signal is, however, weaker in practice than in theory. Landfill obligations are understated by generous capture-efficiency assumptions, and the councils who actually select the disposal destination do not face the ETS price directly — they see it only as an on-charge within the landfill gate fee. The waste disposal levy is therefore a distinct and more appropriate diversion lever, pricing disposal volume rather than emissions; yet at \$70 per tonne it is not presently doing the job for which it was designed. Effective diversion requires both a corrected ETS, founded on honest landfill accounting, and a levy set at a level adequate to its purpose — not one in substitution for the other.

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## **1. Supporting businesses to reduce and recover food waste**

BANZ represents participants across New Zealand's bioenergy and organic-resource recovery sectors, including organisations involved in processing unavoidable organic waste. We strongly support waste prevention and reduction because they sit at the top of the waste hierarchy and promote the recovery of the residuals at their highest value use.

The significance of food waste extends beyond the food itself. Productive agricultural land is a finite national resource and, in many regions, is under increasing pressure from competing land uses. Food waste therefore represents not only a loss of food, but also a loss of the productive capacity, water, nutrients, energy and labour required to produce it. BANZ supports initiatives that improve the long-term productivity and resilience of New Zealand's natural and agricultural resources.

BANZ supports initiatives that improve food security and community wellbeing. However, food insecurity and food waste are distinct issues with different underlying causes. Improving access to food is an important social objective in its own right and should not be viewed primarily as a waste-management intervention. Waste policy should remain focused on preventing avoidable waste and ensuring unavoidable organic residuals are directed to their highest-value use.

### **General questions**

*a) What existing initiatives are you or your sector working on to reduce food loss and waste, and to keep organic materials out of landfill?*

The most visible national initiative is Love Food Hate Waste, which councils support and which has previously helped businesses to separate food waste. The recent increases to the waste disposal levy are also beginning to give businesses a financial reason to separate their food waste rather than send it to landfill. BANZ's own members contribute at the next step in the chain: we provide a sustainable, high-value destination for the food waste that businesses and households cannot avoid generating, through anaerobic digestion that recovers both energy and nutrients from that material.

*b) Are you measuring and reporting food loss and waste?*

Yes, at the processing end. AD facilities already record the volume and composition of the food waste they receive, because this information is required for gate acceptance and under their resource consents. This means the sector already holds robust data on the food waste that reaches it, which could reduce the reporting burden placed on the businesses that generate that waste (see 1.5).

*c) What challenges or needs do you have in further reducing food waste and keeping organic materials out of landfill?*

The principal challenge BANZ sees is one of framing. Prevention and reduction are sometimes presented as being in tension with sustainable processing, when in fact they are sequential steps in the same hierarchy: a business should prevent all the food waste it can, and then send the unavoidable remainder to its highest-value use rather than to landfill. Policy and public messaging that treats these as competing choices risks discouraging investment in the processing capacity that the unavoidable fraction will always require. Clear, consistent messaging that recognises unavoidable organic waste, and names the processing pathways available for it, would address this.

*d) Any other suggestions to help your sector reduce food waste and divert it from landfill?*

Any programme that informs producers, processors and retailers about prevention and reduction should, in the same materials, set out the processing options for the portion of food waste that cannot be avoided. If businesses are told how to reduce waste but not where to send what remains, the unavoidable organic waste defaults back to landfill. Prevention advice and diversion advice should travel together.

### **1.1 Create a national action plan to reduce food waste**

**BANZ position: Support**

BANZ supports the creation of a national action plan. To be effective it should focus on the economics of the food supply chain and on standardising how food waste is defined and measured, so that action is consistent across sectors and regions. Critically, the plan should name anaerobic digestion and biogas explicitly as diversion pathways for unavoidable food waste, alongside prevention and food rescue. International experience shows that plans which name a preferred destination outperform those that remain technology-neutral: the European Union's mandatory separate food-waste collection under the revised Waste Framework Directive, and national biogas targets in Austria, Korea and Thailand, all direct food waste toward AD rather than leaving the destination unspecified. (WBA 2018, pp. 129–130.)

The action plan should recognise that unavoidable food and organic waste require investment in collection and processing infrastructure. Policy measures that encourage source separation should therefore be coordinated with investment recovery infrastructure that ensure collected material can be directed to its highest-value use

### **1.2 Establish a government–industry working group on food waste**

**BANZ position: Support**

BANZ supports establishing a government–industry working group. Councils should be represented, given their role in administering the waste levy and supporting local businesses, as their involvement will strengthen buy-in and delivery. BANZ and the wider AD sector should also have a seat at the table, as they are processors of the unavoidable food waste and can advise on what makes that material usable or unusable as feedstock.

### **1.3 Compile research on barriers to food waste reduction and educate businesses**

**BANZ position: Support**

BANZ supports compiling this research. Our one substantive point is that the educational material produced from it should present anaerobic digestion and biogas as a genuine diversion destination alongside composting and food rescue. Guidance of this kind tends to default to composting and donation as the assumed answers; if AD is not named as an option, businesses will not consider it, and the higher-value pathway will be overlooked.

Research should distinguish behavioural, logistical, regulatory and economic barriers, as these often require different policy responses and investment mechanisms.

**1.4 Share voluntary templates for planning food waste reduction and diversion****BANZ position: Support**

BANZ supports sharing voluntary planning templates. These templates should list anaerobic digestion and biogas as a diversion destination alongside donation and composting, so that a business completing a plan sees the full range of pathways available for its unavoidable food waste and can choose the most appropriate rather than the most familiar.

BANZ provides qualified support. Templates may assist businesses in understanding available diversion pathways, provided they reflect the waste hierarchy and are supported by appropriate infrastructure and policy settings. The templates could encourage businesses to follow the hierarchy:

1. Prevention
2. Redistribution
3. Animal feed
4. AD
5. Composting
6. Landfill

**1.5 Produce a nationally consistent, voluntary food waste reporting framework****BANZ position: Support, with one caution**

BANZ supports a nationally consistent, voluntary reporting framework, provided it aligns reporting with the Ministry's existing baseline parameters rather than creating a parallel system. First, the framework should remain voluntary; making it mandatory would add resourcing cost for businesses, and the value lies in it being practical enough that businesses actually use it. Second, because AD and composting facilities already report the volumes they receive and where material is sent, incorporating that destination-level data into the framework could reduce duplicative reporting by the businesses that generate the waste. Councils, which continually seek this kind of data, would also benefit from access to it. Templates and reporting frameworks should remain proportionate and should not create unnecessary administrative burden.

Once clear diversion pathways and processing infrastructure exist, the greatest value may come from information relating to contamination, material quality and destination outcomes rather than increasingly detailed volumetric reporting.

**1.6 Provide updated guidance to businesses on managing unavoidable organic waste****BANZ position: Support**

BANZ supports updated guidance and regards this as one of the more valuable options in this section. The guidance should set out the full set of processing options for unavoidable organic waste and the factors that determine which is suitable in a given case — volume, waste type, contamination levels, and proximity to processing infrastructure — and, importantly, the benefits each option delivers, so that businesses can weigh recovered value and not only cost. This connects directly to the infrastructure mapping proposed under option 3.1.

### 1.7 Which options should be prioritised?

BANZ considers 1.1 (National Action Plan), 1.2 (working group) and 1.6 (Guidance on Managing Unavoidable Organic Waste) to be the two highest priorities. Together these establish both the strategic direction and the practical tools required to divert unavoidable food waste from landfill

The option 1.3 (research and education on barriers) follows ranked lower not because it lacks merit but because it takes longer to translate into diverted tonnes.

### 1.8 Examples or evidence

BANZ members can provide examples of commercial and household food waste being diverted to anaerobic digestion, including through the Ecogas Reporoa facility, with tonnages available on request.

## 2. Supporting councils to implement or enhance kerbside organic services

### General questions

Councils carry the practical burden of organic collections: funding them within constrained rates, securing household participation, and securing a viable destination for the material. BANZ offers this section from a perspective of what councils need in order to succeed.

Three things determine whether a council can implement a collection successfully. First, **certainty of destination**. A council needs confidence that processing capacity and a durable end market exist before it commits ratepayer funding to a collection; a scheme that produces material no one will take simply relocates the problem. Second, **public participation**. Diversion ultimately depends on households, and participation cannot be assumed — it has to be earned through a benefit the public understands and believes in. Third, **a realistic view of whole-system cost**. The consultation document is too simple on facility siting and system costs: siting away from residential areas manages odour and amenity but increases transport distance and cost, and the greenhouse gas cost of the contaminated fraction that returns to landfill is not captured at all. Councils need the full picture to make sound decisions.

### 2.1 Develop standardised modelling tools for territorial authorities

#### **BANZ position: Support (strongly)**

BANZ strongly supports developing standardised cost–demand modelling tools. New Zealand's 67 territorial authorities plan on disconnected six-yearly Waste Management and Minimisation Plan cycles under the Waste Minimisation Act 2008, and this desynchronisation is a real obstacle to regional infrastructure procurement. Standardised models populated with local resident numbers, transport and infrastructure data would allow smaller, fiscally constrained councils to project landfill levy cost-avoidance with confidence, and would establish a common, peer-reviewed basis for regional business cases — enabling value-for-money collaboration across council boundaries without each council repeating the same analytical work.

The tools should be simple, not sophisticated. The consultation can be read as proposing an elaborate optimisation tool. What is required are simple business-case tools, a demonstration that practical solutions exist, and straightforward guidance on how to use and optimise the regional infrastructure that is available. If the rules are simple, councils and solution providers can work within the framework. In essence, the models need only answer one generic question: are affordable solutions available for every population cluster?

One design point is essential: the models must distinguish between processing destinations — anaerobic digestion versus composting — on both cost and emissions, and the recovered product value of each pathway. A tool that compares only cost per tonne of collection will systematically undervalue AD, whose advantage lies in the energy and nutrients it recovers.

## 2.2 Share resources to support optimal household use of kerbside collections

### **BANZ position: Support**

BANZ supports sharing resources with councils, and highlights two priorities.

Public buy-in is the mechanism that makes collections work which requires that the public understands the process, and that the benefit is real to them. The public is well aware that emissions reductions achieved in New Zealand are small on a global scale, and a message built on emissions alone is unlikely to carry. Successful promotion of organic waste diversion depends on communicating its full value including that of energy resilience, nutrient recovery, preservation of landfill space, and the spread of modern processing infrastructure through the regions. Once those benefits are clearly stated, modest cost differences relative to landfill are unlikely to sway public opinion.

What councils need, practically, is shared promotional material they can deploy locally without each building it from scratch. Councils also need accessible information on where processing facilities exist regionally, so collections can be routed to the most appropriate destination.

## 2.3 Fund trials for increasing uptake and share findings nationally

### **BANZ position: Support, with a caveat on new spending**

BANZ supports the intent, but notes that a great deal of relevant research already exists among the New Zealand councils that have implemented kerbside collections, and could be collated and shared now without funding new trials. International guidance (for example from WRAP in the United Kingdom) is also available. The immediate priority is to ensure research that councils have already produced are shared with those considering the same interventions.

Before commissioning new trials, MfE should catalogue the lessons learned from existing council programmes and make these available nationally. For example, a substantial body of research already exists into the tools for increasing household participation. Overseas municipalities currently focus on research and development of tools for reducing contamination in the collected materials, either prior or post collection.

## 2.4 Showcase organic waste diversion as a climate change mitigation tool

### **BANZ position: Qualified support**

Framing diversion primarily as a climate mitigation tool is unlikely to be the most effective approach. Successful promotion of organic waste diversion depends on communicating its full value. Greenhouse gas reduction is an important outcome, but public support is more likely when councils can also demonstrate

benefits such as renewable energy generation, resource recovery, preservation of landfill capacity, and improved infrastructure resilience.

BANZ therefore recommends that MfE provide practical communication tools and guidance that enable councils to showcase these wider benefits, rather than a campaign built on emissions alone.

### 2.5 Which options should be prioritised?

Successful organic waste diversion ultimately depends on household and business participation. BANZ therefore ranks 2.4 (showcasing the benefits of diversion) as the highest priority, followed by 2.2 (sharing resources with councils) — the two options that most directly help councils build public understanding and confidence. 2.1 (modelling tools) follows, and 2.3 (funded trials) last, given the research that already exists.

The priority for MfE should be practical communication tools, case studies and guidance that showcase the environmental, economic and resource-recovery benefits of diversion.

### 2.6 Examples or evidence

Two New Zealand examples are directly relevant. Christchurch City Council's long-running FOGO service and its current transition to anaerobic digestion — already featured as a case study in the consultation document — demonstrates a mature kerbside collection moving to the higher-value pathway. The consolidated collection of Auckland food organics for processing at Ecogas Reporoa, using otherwise-empty return-freight journeys, demonstrates how cross-regional logistics can bring feedstock to an AD facility at viable scale while keeping transport emissions low.

## 3. Enabling organic processing solutions, including biogas

This section sets out the evidence for the central proposition in our summary: that anaerobic digestion is the preferred pathway for suitable food and putrescible feedstocks, and belongs above composting and landfill in the waste hierarchy for suitable feedstocks.

We do not suggest a single technology suits every circumstance. Feedstock quality, volume, location and local end markets all bear on the right choice, and different circumstances will justify different approaches.

The consultation's neutral framing — “organic processing solutions, including biogas” — risks defaulting to composting as the assumed answer and treating the choice of technology as a matter of preference. It is not. The technologies deliver materially different outcomes in recovered value and in emissions, and the framework should reflect those differences rather than remain agnostic to them. BANZ's purpose here is to offer MfE a defensible basis for ranking the options where the feedstock is suitable.

### General questions

#### *a) What factors are most important when selecting an organic waste processing solution?*

Selection should be driven by two questions above all others: what value is recovered from the material, and what emissions result. Feedstock properties, regional logistics and end-market stability frame the practical decision. Assessed against these, AD is frequently the superior pathway where segregated food and other putrescible organic waste is available at material scale — Italy and the European Union direct food scraps to AD on this basis. The following factors matter, and on each, AD frequently outperforms the alternatives where the feedstock is suitable:

- **Whole-of-system carbon impact.** AD delivers the greatest emissions reduction of the available pathways.
- **Value and range of products** — biogas, biomethane, biogenic CO<sub>2</sub> and digestate. Biomethane can offset fossil gas and serve hard-to-abate industries; locally produced digestate substitutes for synthetic fertiliser, which is exposed to global supply shocks, price volatility and shipping delays.
- **Sustainable end markets** — biogas runs the facility or is upgraded to biomethane and injected into existing gas pipelines; digestate is a nutrient-rich biofertiliser supplying nitrogen and other elements to pasture, cropping and horticulture. Relationships with local farmers to take digestate keep transport cost down and make it financially viable.
- **Fully enclosed processing** — contains odour and other fugitive emissions; neighbour-friendly.
- **Consentability** — the site and process can be consented.
- **Superior fugitive-emissions control.** AD is a fully enclosed process, and the difference is quantifiable: an emissions factor of 0.022 kg CH<sub>4</sub> per kg of waste for AD against 0.176 kg CH<sub>4</sub> per kg for composting, 0.591 for landfill with gas recovery — AD is around eight times lower than composting. Landfill, by contrast, releases methane over decades from a source that cannot be fully contained.
- **Transport** is often treated as a negative, but moving food waste a long distance to reach AD is still better on an emissions basis than a shorter trip to landfill.
- **The “limited digestate market” objection does not hold.** Some parties argue there is no established market for digestate. In fact digestate is a nutrient-rich biofertiliser with a real and growing market, valued for the nitrogen and other nutrients it returns to pasture, cropping and horticultural land. Compost, by contrast, is a low-value soil conditioner whose fertiliser value is marginal, and which becomes a liability where it accumulates unused — as some councils operating large composting operations have found.

*b) What data or information would be most useful to support decision-making?*

- Volume, composition and location of feedstock — ideally kept within the local district, or combined across councils/suppliers for economies of scale and ease of transport (this is where infrastructure mapping assists).
- A map of consented organic processing facilities, including consented AD plants — so councils and generators can see what capacity exists, and where the genuine gaps are.
- Avoided-emissions metrics; proximity to sustainable end markets for all products; land availability and consenting considerations under regional plans.

*c) Could improved data from AD and composting facilities help decision-making?*

Yes. Emissions reporting creates transparency and supports better future decision-making. The reporting requirements for AD and composting should, however, be commensurate with the expected level of emissions — which in the case of AD is very low. A reporting burden calibrated to a high-emitting activity would be disproportionate for a low-emitting one, and would add cost without improving the quality of decisions.

On what to report: the emphasis should be on *what* data is useful, not simply more of it. Metrics that make the value visible — homes powered from captured methane, tonnes of synthetic fertiliser displaced by digestate, land area supported by digestate, and evidence that end products are beneficially used in durable

markets. Decisions should also account for full life-cycle costs: AD may cost more to establish than composting, but its ongoing costs and recovered value tell a different story.

### 3.1 Map local infrastructure gaps and opportunities for diverting organics

#### **BANZ position: Support**

Infrastructure mapping should address geographical deficits in AD and commercial composting capacity, and explicitly link EECA's regional feedstock assessment to logistically viable transport networks. Highlight cross-boundary council feedstock clustering and return-freight logistics (the Ecogas Reporoa model leverages empty return-freight journeys to reach viable scale).

For the mapping to be genuinely useful for infrastructure and investment decisions, BANZ recommends the information gathered include, for each material stream:

- Facility or producer name, and the location of the waste/producer, ideally with GPS coordinates.
- Type and description of the organic waste.
- Quality data where available — for example dry matter (DM), total and volatile solids (TS, VS, VS/TS), chemical oxygen demand (COD), carbon (C), total Kjeldahl and total nitrogen (TKN, N), phosphorus (P), potassium (K), sulphur (S), calcium (Ca), and chlorides.
- Contaminants, if any; volumes; and seasonality of supply.
- How, and how far, the waste is currently transported; and where it currently goes (landfill, composting, vermicomposting, stockfood, land application, etc.), ideally with GPS coordinates.
- Where sharable: a contact person; the total cost of the current disposal method with transport as a separate line item; and any revenue received for the waste.

### 3.2 Provide information on biogas through a waste lens; update waste-to-energy guidance

#### **BANZ position: Support (strongly)**

The MfE Waste-to-Energy Guide has not been updated since 2020 and does not reflect the October 2025 Government Statement on Biogas, creating regulatory uncertainty — including around biomethane injection standards.

BANZ asks that MfE extend the scope of this guidance from "waste-to-energy" to "organic waste processing for resource recovery." The current framing is too narrow. It focuses attention on energy alone, when the value of these processes lies equally in nutrient recovery, soil health, biogenic CO<sub>2</sub> and the displacement of imported synthetic fertiliser. Guidance framed around resource recovery would capture the full benefit of the available technologies and give councils and investors a complete basis for decisions.

#### **Four things MfE should publish:**

- 1. Waste-hierarchy / circular-economy factsheets for councils** — clarifying that while source reduction is the top priority, diverting unavoidable organics to AD is significantly better than landfill or composting, giving councils the confidence to invest in segregated collection logistics.
- 2. Regulatory-lever guides on the ETS and levy** — mapping the "tipping point" at which diverting to biogas becomes cheaper than landfilling, translating climate policy into financial logic for operators and large organic-waste producers.

**3. Landfill gas optimisation playbooks** — technical guidance and local success stories to help existing landfills move from flaring to utilisation (power or biomethane upgrade), accelerating near-term abatement.

**4. A Waste Minimisation Fund biogas application guide** — setting out what a strong waste-to-energy funding proposal looks like (e.g. regional feedstock mapping, community partnerships) to remove guesswork for investors.

Diverting organic waste to AD decreases associated biogenic emissions substantially versus landfill, and where biomethane displaces fossil gas the benefit compounds.

### 3.3 Examples or evidence

- The World Biogas Association “Make Biogas Happen” framework — nine pillars grounded in best practice: (1) international/national policy, (2) feedstock policy, (3) biogas utilisation, (4) digestate policy, (5) gas quality regulations, (6) technical/operational standards, (7) regulation, (8) planning policy, (9) health & safety. <https://www.worldbiogasassociation.org/mbh/>
- Ecogas Reporoa (already an MfE case study) and the Christchurch OPF as live NZ examples.

## 4. Broadening waste sector participation in the New Zealand Emissions Trading Scheme

**BANZ position:** The case for extending the ETS to anaerobic digestion and other organic processing is flawed: it would raise no revenue, change no behaviour, and introduce distortions that work against the very outcome this consultation seeks — the diversion of organic waste from landfill.

Beyond that, it would actively set diversion back. Investment in anaerobic digestion infrastructure depends on long-term confidence in policy settings, and introducing uncertainty about future ETS liabilities for AD facilities risks delaying investment decisions and slowing the development of the very processing capacity that diverting unavoidable organics requires.

For that reason, ETS expansion should not proceed ahead of a robust analysis of the relevant emissions — one that accounts for the uncertainties in the data and properly weighs avoided landfill emissions, fossil-fuel displacement and resource-recovery benefits. The measure that would genuinely improve diversion, a functional landfill levy, is absent from this consultation altogether.

Several of the questions in this section reflect the position of the landfill sector. Our answers therefore set out the reasoning in full, rather than resolving to a yes or no in isolation.

### 4.1 Decision-making criteria for ETS coverage

*a) Are the principles in table 2 appropriate for guiding decisions on waste sector coverage for the ETS?*

**BANZ position:** Qualified support.

The principles in Table 2 are broadly sound, and the coverage question is legitimate for landfills — leaving Class 2 sites unpriced creates emissions leakage and distorts the economics of diversion. Our concern is not with the principles themselves but with how the consultation applies them.

The central problem is that the document conflates two separate questions. Table 2 runs together (1) whether an activity has the capacity to participate in the ETS, and (2) whether ETS coverage is appropriate. These are different. Capacity is a practical matter — whether emissions can be measured and reported,

whether abatement options exist, whether the activity can bear the cost. Appropriateness is a broader policy question: whether coverage would actually advance emissions-reduction objectives, or instead create unintended consequences. An activity can have the capacity to participate while remaining an inappropriate candidate for coverage. Anaerobic digestion is exactly such a case: it could be measured and brought into the scheme, but doing so would discourage investment in the very infrastructure that diverts organic waste from landfill and displaces fossil gas. Operators who invest in facilities that abate emissions — and that create the opportunity for further avoidance — need confidence that their investment will not then be penalised through the ETS for those same efforts.

Separating these two questions is the single most important refinement to the framework: coverage should be considered only where it is both feasible and appropriate, and appropriateness should be judged against whether coverage advances diversion and emissions reduction overall.

*b) Are there any principles missing from table 2?*

**BANZ position: Yes.**

Three additions would make the framework robust.

**Net carbon balance** must be recognised. This is the most important omission. A coverage rule that counts only a facility's own emissions and ignores the emissions it avoids — above all the methane never produced in landfill, together with the fossil gas and synthetic fertiliser displaced by its products — measures the wrong thing. The principle must credit the full abatement chain, not just the stack. Judged on its own emissions alone, an anaerobic digestion facility looks like a source to be priced; judged on its net balance, it is a net abater, and pricing it makes no sense.

**Scale and materiality** should be explicit. Coverage should be triggered only above a minimum level of emissions. A single facility may not warrant inclusion on its own, though the aggregate across many facilities of a type may combine to cross a materiality threshold — and it is that aggregate, not the individual site, that the test should address.

**Leakage testing** should be built in. Each coverage option should be tested for whether it simply shifts waste to an uncovered facility type rather than genuinely reducing emissions.

## 4.2 Waste sector participation in the ETS

*a) Are the current rules for participation in the ETS sufficient to cover all meaningful emissions sources in the waste sector? Please outline the reasons for your answer.*

**BANZ position: No — for landfills**

Current coverage excludes Class 2 landfills and industrial monofills that produce meaningful leakage of biogenic methane.

*b) Should all classes of disposal facility that accept putrescible and biodegradable waste be subject to ETS obligations for the emissions they produce? Please outline the reasons for your answer.*

**BANZ position: Yes for landfills, to close leakage. No for technologies where the magnitude of emission is small and those that offer pathways to avoid fossil emissions.**

- The current exclusion of Class 2 construction/demolition landfills and industrial monofills creates sectoral emissions leakage. Since the Class 1 levy escalated (\$65–\$75/tonne), reporting shows Class 1 volumes falling while Class 2 volumes rise.

- Surface-detection studies verify significant biogenic methane at Class 2 sites, largely from degraded timber. Leaving these out of the ETS, treats biogenic methane as an unpriced externality and undermines the NZU price signal. All facilities accepting organic or putrescible components — including sawmill and biosolid monofills — should face equitable obligations. *International precedent for pricing/banning landfilled organics to prevent leakage: EU Landfill Directive diversion targets; Scotland's and five US states' organic-waste landfill bans (WBA 2018, pp. 130, 136).*

c) Should resource recovery facilities that handle organic materials (AD, composting) be subject to ETS obligations for the emissions they produce? Please outline the reasons for your answer.

**BANZ position: No — AD and organic processing should not be brought into the ETS**

This is BANZ's key position on this consultation. The right starting question is the one the ETS is designed to answer: *what behaviour is the scheme trying to deter?* Class 1 landfills are covered because there is a deterrable behaviour — sending divertible organic material to a leaky sink where it generates methane. Wastewater treatment plants are excluded because there is no deterrable behaviour: it is futile to disincentivise people from producing bodily waste. AD sits at the far end of that same logic. There is no behaviour to deter — AD is the treatment outcome the system wants more of — so charging would be counterproductive and yield no actionable value. Our detailed reasoning follows.

- **Including AD achieves nothing.** For well-designed AD systems processing source-separated organics, avoided emissions will generally exceed direct fugitive emissions. An AD facility in the ETS would never actually pay anything, so inclusion delivers no revenue and no behaviour change. To include it for no benefit is pointless.
- **It requires a reward mechanism that does not exist.** Crediting AD for avoided emissions has no home in the current NZ ETS, which rewards only permanent removals (at present, forestry). Avoidance is not a removal — the carbon is cycled, not permanently sequestered — so there is no mechanism to pay AD for what it avoids. Building a bespoke one would be complex and fraught.
- **It would force reopening the flawed landfill calculation.** A landfill is, in effect, a poorly performing anaerobic digester. If controlled digesters are drawn into the scheme, the far larger and more uncertain landfill gas-capture calculation would have to be reopened to keep the playing field honest — an issue made more acute by the parallel ETS regulatory review, which proposes removing the current cap and allowing UEF claims of up to 100 percent capture. That is a strong reason not to start down this path.
- **Two counterproductive outcomes must be avoided.** First, picking on AD while ignoring composting — charging an enclosed, low-emission AD facility for its emissions while an open compost pile pays nothing would be an unfair outcome. Second, the agriculture loophole — waste currently spread to land attracts no ETS cost under the agriculture settings, so charging that same material once it enters an AD facility would penalise the better environmental option.
- We note the ETS regulatory review itself proposes exempting waste from remediation of historic contaminated sites on the grounds that its emissions are small and that continuing to capture it under the ETS would be a perverse outcome. The same rationale applies directly to AD which only produces small net emissions which are counterproductive to include in the ETS.

**The proportionate alternative: information provision first, ETS as a stick only if needed.** Rather than an ETS obligation, methane-leakage minimisation at AD facilities is better addressed — at least initially — through information-provision obligations. Operators already have a strong financial incentive to minimise leakage, because leaked methane is lost product. If information provision were to show that operators are managing

leakage poorly, the ETS would then be a credible “stick” to sharpen that incentive. Starting with measurement and transparency is proportionate to the actual risk and avoids the contradictory outcomes above.

**If MfE proceeds toward inclusion, the following safeguards are essential:**

- Obligations must be calculated net of avoided emissions, not on gross stack/fugitive figures. AD emits a fraction of the emissions per tonne from a landfill (estimates range 5–20x lower); any obligation must reflect the actual emissions profile, never a landfill-shaped liability applied to AD that is unadjusted.
- Coverage must be scaled and threshold-based, triggered only above a minimum emissions level.
- Composting must be covered on the same basis as AD, to avoid rewarding the higher-emitting option.
- Where AD is charged for emissions, it must also receive credit commensurate with the emissions it saves.
- Coordinate with existing frameworks to avoid double-counting — on-farm digesters are tracked in the agriculture sector, and food processors are subject to trade-waste regulation.

*d) Should ETS obligations cover any other facility or infrastructure types in the waste and resource recovery sector that produce emissions? Please outline the reasons for your answer.*

**BANZ position: Yes — but only where emissions meet a materiality test.**

Our answer follows the principle set out at 4.1: coverage should turn on net emissions outcomes and on consistency with waste hierarchy objectives, not on facility type as such. Hence the case for extending obligations is strongest where a facility accepts putrescible or biodegradable material and is not currently covered.

Class 2 landfills are the clearest example. The consultation itself acknowledges that Class 2 sites accept organic material (mostly timber) that degrades and generates methane, and that surface-detection studies have identified methane at a subset of these sites. Industrial monofills handling organic and putrescible materials, including sawmill residues and biosolids, are in the same position. Leaving these unpriced treats biogenic methane as an unpriced externality and creates an incentive to divert material away from Class 1 sites that do face an obligation.

By contrast, Class 3, 4 and 5 facilities are permitted to accept only inert or virgin excavated material. Absent evidence of material methane generation, there is no case for bringing them into the scheme, and doing so would impose cost without abatement.

Any future consideration of additional facility types should be based on net emissions outcomes and consistency with waste hierarchy objectives, applying a materiality threshold rather than a blanket rule.

We would also observe that the case for extending coverage rests on the integrity of the underlying emissions accounting. As set out elsewhere in this submission, current landfill emissions calculations rely on generous gas-capture and oxidation assumptions that understate actual emissions. Extending coverage

while leaving those assumptions unexamined would broaden a measurement framework that is itself optimistic.

*e) If yes, please list any other facility or infrastructure types that should be covered by ETS obligations*

Beyond Class 2 landfills and organic-handling industrial monofills, BANZ raises a concern about **regulatory clarity rather than a settled list**. The consultation proposes broadening ETS coverage but does not explain how a number of facility types would be classified — in particular those handling biosolids, animal-processing and abattoir wastes, and wastewater-derived organics.

**Land application of industrial organic sludges is the clearest gap.** Industrial sludges spread to land decompose in uncontrolled conditions, generating methane and nitrous oxide that no one measures and no one pays for. That same material, if sent instead to an enclosed anaerobic digestion facility where the methane is captured and used, would — under the approach canvassed in this consultation — attract an ETS obligation. The framework would therefore price the controlled, low-emission pathway and leave the uncontrolled, higher-emission one entirely free. This is the opposite of what an emissions-pricing instrument is meant to achieve, and it is a direct disincentive to divert this material to beneficial processing.

As an example, it is unclear whether an **industrial anaerobic lagoon constitutes a "facility"** for these purposes, and the treatment of an uncovered lagoon is quite different from a covered one. An uncovered anaerobic lagoon can hardly be described as resource recovery — yet it is precisely the kind of operation that generates uncontrolled methane and that both the ETS and the levy should be capturing.

The classification framework needs to be resolved before coverage is extended, or the scheme risks penalising controlled, enclosed processing while leaving uncontrolled emission sources outside it altogether.

### 4.3 General questions

#### **The missing instrument: the landfill levy**

The consultation asks how the ETS should be extended across the waste sector. It does not ask about the landfill levy — the instrument actually designed to drive organic waste out of landfill and toward sustainable processing. That omission matters, and we address it here before turning to the questions asked.

The collective experience across New Zealand's bioenergy sector is that the current levy, at \$70 per tonne, is far too low to shift behaviour. Landfill operators can absorb or discount it within their commercial gate fees, neutralising the price signal and keeping high-energy organic waste flowing into landfill rather than into renewable gas, heat and biofertiliser. The levy was designed to make sending waste to landfill more expensive than the alternatives — in the Government's own words, so that "sending waste to landfill is no longer the cheapest and easiest option." At \$70 per tonne it is not achieving that purpose.

International benchmarks show how far New Zealand sits below jurisdictions that have successfully built diversion infrastructure. Our levy is roughly a quarter of the United Kingdom's 2026 landfill tax (approximately NZ\$285 per tonne) and less than half of Australian metropolitan rates (NZ\$185–190 per tonne). Both use a high levy as the primary driver of sector investment. Victoria has gone further and legislated to close the gate-fee loopholes that let operators discount their way around the levy — reclassifying municipal waste sent from a resource-recovery facility to landfill as higher-rated industrial waste unless its origin is evidenced, and charging metropolitan-origin waste at the metropolitan rate regardless of where it is finally disposed of.

If New Zealand is to rely on the levy as its principal mechanism for diverting organics — which, in the absence of a diversion target or landfill ban, it must — then it needs both an internationally competitive rate and rules robust enough to ensure the signal cannot simply be absorbed at the gate. A differentiated levy on organic material sent to landfill is one option worth the Ministry's consideration: it would sharpen the diversion signal for exactly the waste stream this consultation concerns, and could help fund the processing infrastructure that diversion requires.

This is the single most consequential change available to the Ministry, and it is not on the table in this consultation. We urge that it be put there.

- a) Do you believe any other changes (beyond those included in this sector feedback document or the 2026 ETS regulatory review consultation) could be made to the ETS regulations for the waste sector to maximise emissions abatement opportunity and incentives?

**BANZ position: Yes**

- b) (If yes, what other changes could be made to the ETS regulations for the waste sector?)

**Correct the landfill emissions accounting before extending coverage.** As set out at 4.1 and 4.2, landfill obligations are understated by generous gas-capture assumptions and the oxidation factor, and the parallel ETS review proposes allowing capture claims of up to 100 percent. Extending coverage while leaving this unexamined would broaden a measurement framework that is itself optimistic. The integrity of the baseline is a precondition for everything else.

**Recognise avoided emissions.** The scheme credits only permanent removals, and has no mechanism to recognise emissions a facility prevents — landfill methane never generated, fossil gas and synthetic fertiliser displaced. Until it does, the framework prices the technologies delivering the most abatement as though they were sources rather than sinks. We do not propose a specific mechanism here, but ask that the absence of one be acknowledged as a gap.

We also draw the Ministry's attention to the landfill levy, addressed at the head of this section.

- c) Research, reports or evidence to consider.

**New Zealand operational evidence.** Ecogas's life-cycle carbon intensity assessment of the Reporoa anaerobic digestion facility, prepared by Toitū Envirocare to ISO 14067, quantifies both the emissions the facility produces and the substantially larger emissions it avoids. It is New Zealand's only commercial-scale, audited operating data on AD emissions performance, and is submitted with the companion Ecogas submission.

**International frameworks.** The World Biogas Association's *Make Biogas Happen* framework sets out the nine policy pillars needed to build a functioning biogas sector (<https://www.worldbiogasassociation.org/mbh/>). Its *Global Food Waste Management* report, with C40, compares organic processing technologies and international policy precedent, and includes an Auckland case study (<https://www.worldbiogasassociation.org/food-waste-management-report/>).

**Related submission.** BANZ is also submitting to the parallel 2026 ETS Regulatory Review; the two should be read together on landfill emissions accounting and unique emissions factors.

## 5. Considering landfill gas management in the new planning system

## 5.1 Review of NES-AQ criteria

*a) Are changes needed to criteria 1 and 2 (size and capacity)?*

No comment — this falls outside BANZ's core focus.

*b) If yes, should size and/or capacity be increased or decreased*

No comment — this falls outside BANZ's core focus.

*c) Are changes needed to criterion 3 (open landfills only) on requirements for landfills to manage landfill gas if they are currently open? Please explain the reasons for your answer.*

**BANZ position: Yes — extend to closed landfills**

- Municipal waste continues to produce biogenic methane at material scale for 20–50 years after closure (South Australia EPA and international evidence). NZ has no national standard for closed-landfill emissions, relying on ad-hoc consent conditions.
- Because retrofitting gas capture to historic unlined sites is often cost-prohibitive, we recommend a dual approach: (1) require all currently operating landfills to install robust gas-capture infrastructure designed to persist after closure; and (2) update MfE's obsolete 2001 closed-landfill guide to incorporate modern, low-cost passive bio-filtration and bio-covers for historic low-yield sites.

*d) Are changes needed to criterion 4 (5% putrescible threshold) that is allowed in a landfill before regulations apply? Please explain the reasons for your answer.*

**BANZ position: Maybe**

MfE should assess the economic impact if operators are forced either to install active capture or to reject timber/putrescible loads. Removing the threshold would push organics toward capture-equipped sites — raising landfill's cost relative to diversion, which BANZ welcomes — but this should be weighed against the concern about gate-fee-driven illegal dumping.

*e) If yes, should the threshold be increased?*

No comment — this falls outside BANZ's core focus.

*f) Are changes needed to criterion 5 (5,000 ppm surface emissions) on the requirement for surface emissions to not exceed 5,000ppm? Please explain the reasons for your answer.*

**BANZ position: Yes — tighten to 500 ppm**

The 5,000 ppm cap is outdated and permits disproportionately high surface emissions. The US (Clean Air Act 40CFR), Canada and the UK (Environment Agency LFTGN07) all regulate to 500 ppm. NZ's leading modern landfills, such as Redvale, already operate well below 500 ppm, confirming feasibility.

*g) Would you support making Class 2 landfills subject to gas capture requirements? Please explain the reasons for your answer.*

**BANZ position: Yes**

This is consistent with the level-playing-field position in section 4.2(b).

## 5.2 A regulated 60% efficiency standard for landfill gas capture

*a) Do you support the option to introduce a minimum efficiency standard for landfill gas capture systems required by regulation? Please explain the reasons for your answer.*

**BANZ position: Support directionally**

- Relying on ETS pricing alone has left gas-capture efficiency stagnant — a weighted average of about 47% (Climate Change Commission 2025). The upper tier of Class 1 sites reach 60–80%, but a long tail of council-owned facilities drags the average down.
- **Important qualification:** capture efficiency is not the same as emissions reduction. The real win is diversion, not better capture at the landfill. The same commercial drivers that reward high capture rates also reward operators for keeping organics flowing into the landfill in the first place — so an efficiency standard is at best a second-best fix for material that should not be landfilled at all.

b) Is 60 percent a reasonable minimum efficiency standard for landfill gas capture systems, or should this be higher or lower? Please explain the reasons for your answer.

A regulated 60% standard would compel low performers to upgrade; recycling Class 1 levy revenue to subsidise upgrades at smaller municipal sites would reduce the risk of forcing regionally important, disaster-resilience sites to close.

c) If you are a landfill operator, what sort of lead-in time would you need to be able to comply with a minimum efficiency standard of 60 percent?

Not core BANZ territory. We defer to members who are also landfill owners or consent authorities.

d) What would the operational impacts be for you, your business or your council if a minimum efficiency standard was required?

Not core BANZ territory. We defer to members who are also landfill owners or consent authorities.

e) What are the barriers or challenges you might face in achieving a 60 percent minimum efficiency standard?

Not core BANZ territory. We defer to members who are also landfill owners or consent authorities.

f) Please share any further thoughts or ideas on this option.

Not core BANZ territory. We defer to members who are also landfill owners or consent authorities.

g) Please provide any additional examples or evidence related to this option that you would like to share.

Not core BANZ territory. We defer to members who are also landfill owners or consent authorities.

### 5.3 Compliance approaches and information requirements

a) If you are involved in consenting, particularly of landfills, what are the main challenges in the current process? And what areas of the process are working well?

b) If you are involved in consenting, particularly of landfills, do you currently have access to enough information to monitor consents for compliance? (Yes / No / Maybe/unsure)

c) (If no, what are the barriers to getting this information?)

d) What support could central government provide to improve compliance monitoring and enforcement practices in relation to landfills and landfill gas capture?

Not core BANZ territory.

For further information, please contact

Brian Cox

Chief Executive, BANZ

[brian.cox@bioenergy.org.nz](mailto:brian.cox@bioenergy.org.nz)