

14 June 2024

Ministry for the Environment
Via consultation portal

Tēnā koe,

Improving the ETS with the right incentives to facilitate decarbonisation activities

Powerco is committed to contributing to Aotearoa New Zealand's net zero 2050 targets. We support the Emissions Trading Scheme (ETS) as a primary tool in driving market-led measures for New Zealand meeting its 2050 net zero targets. ETS regulations will need technical change over time to reflect changes in decarbonisation activities and progress. However stable and predictable ETS settings are a critical requirement for the ETS to incentivise emissions reduction while also achieving economic growth.

Powerco is one of Aotearoa's largest gas and electricity distributors, supplying around 357,000 (electricity) and 114,000 (gas) urban and rural homes and businesses in the North Island. Our energy networks and activities provide essential services to around 1 million kiwis and will be core to Aotearoa achieving a net-zero economy in 2050. Our response on this ETS review is focused on two key Powerco interests; application of the ETS to decarbonisation opportunities and investments in renewable natural gas activities; and considerations for further reducing our own emissions through offsetting via the voluntary carbon market.

We have provided response comments on the proposed changes in the attached tables. Our summary views are:

Incentivising biogas opportunities

- Flexibility in calculating UEF/DEF at landfills is supported including landfill gas destroyed offsite and by a third party. This will recognise more options for reducing emissions
- A broader review is required for appropriate ETS settings to support a market response incentivising production of biogas to displace natural gas use, including incentivising production at landfill in preference to flaring
- Development of emissions factors for renewable gas activities would support both renewable gas certification and reporting gas use (including by opt-in participants).

Stable ETS settings to grow to zero

- Steady and predictable New Zealand Unit settings will support businesses to make the necessary investments in decarbonisation, and other investments to grow their business
- Adjustments to the ETS should seek to avoid policy uncertainty, market instability and price volatility to reduce the risk of emissions leakage offshore or premature reduction of industry in New Zealand as we work towards our 2050 targets.



This ETS review is a significant opportunity to ensure optimal provisions for the adoption of renewable natural gas in New Zealand and we would like to work with the Ministry on the detail of the settings, particularly proposal 4(c).

If you have any questions regarding this submission or to talk further about settings related to renewable natural gas, please contact Irene Clarke (Irene.Clarke@powerco.co.nz). We give consent for this submission to be published in full.

Nāku noa, nā,

A handwritten signature in black ink that reads "E. Wilson".

Emma Wilson

Head of Policy, Regulatory and Markets

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Attachment 1 – Powerco response to consultation document

Table 1 Powerco responses – Proposed changes to ETS regulations

Topic	Powerco response
Update 2 – DEFs for natural gas activities	<p>We support the approach to base obligations for gas producers on reported emissions data as opposed to using a DEF, but to have a DEF for reporting by opt-in participants.</p> <p>We endorse Option 2 to update the DEFs to reflect current gas supply, so they provide an effective measure for opt-in participants.</p>
Update 4 – Improving accuracy for the waste sector	<p>There has been significant change in the waste sector since 2022, including in our area of interest – opportunity for renewable natural gas production through use of landfill gas off-site. It is timely to review the regulations including to account for alternative uses for methane that are developing quickly.</p> <p>The destruction of landfill gas by producing biogas is not only reducing landfill emissions, it is also reducing waste to landfill, and also displacing use of natural gas with a much lower emission gas. The opportunity for biogas production to contribute to emissions reduction and waste reduction is shown in excerpt 2 from the Blunomy report in Attachment 2.</p> <p>We consider there is opportunity for the ETS to incentivise production of biogas rather than flaring at landfill, and that incentives are appropriate as landfill gas is the only biogas feedstock covered by the ETS. We comment further on the biogas potential and Blunomy report under item 4c below.</p> <p>While we have a particular interest in biogas, there are also other opportunities for beneficial ‘destruction’ of landfill gas which may occur on the site of the disposal facility, or off-site. For example, conversion to electricity could also occur off-site and should be incentivised through the ETS rather than flaring. This could be a relevant option in remote areas to support (or replace) electricity network reinforcement.</p> <p>As outlined in the sections below, we support the proposed updates for the waste sector in this review as an interim solution to incentivise options other than flaring, which may occur off-site. We also recommend a broader review for the ETS mechanism supporting a market response through incentivising production of biogas to displace natural gas use, including incentivising production at landfill in preference to flaring.</p>
4a – Aligning DEF and UEF values	<p>We support option 2 to update the UEF regulations for consistency. We note that updates to align the DEF and UEF will likely require all UEF holders to reapply. We recommend a streamlined process for UEF reapplications to reduce costs, noting it is largely a technical correction.</p>
4b – Clarify data for UEF calculation	<p>Linking the calculator used to the timing of the waste disposal would improve accuracy. We do not have a preference for either option 1 or option 2 but note our comment on 4a that any changes requiring all UEF holders to reapply, must be accompanied by an implementation plan that streamlines this process.</p>
4c – Offsite destruction of landfill gas	<p>We endorse an amendment that provides flexibility in calculating UEF and facilitates more options for reducing emissions through different treatments of landfill gas – including landfill gas destroyed offsite and by a third party. We support Option 2 as a suitable technical solution now, noting a broader consideration of the ETS incentivising biogas production over flaring or other options should also be undertaken.</p>

Topic	Powerco response
	<p>Alternative beneficial reuse of landfill gas is developing quickly with a number of projects in investigation or scoping that involve an end use which is not at the disposal facility and/or a third party undertaking the destruction.</p> <p>Renewable natural gas as a substitute for natural gas offers a solution which enables net-zero or low emissions alternatives but based on molecular combustion. New Zealand has an opportunity to realise lower cost transition pathways using net-zero combustion processes rather than those possible with pathways only where combustion is curtailed or substituted.</p> <p>We are confident on a role for biogas with sufficient quantity to play an important part of the transition. Electrification alongside fossil gas and renewable gas will all be needed to support a managed and equitable transition if we are to keep the lights on and the economy growing. Recent modelling indicates biogas is necessary as part of the future energy mix¹.</p> <p>The Blunomy report² co-commissioned by Powerco, Clarus and Ecogas provides evidence on feedstock and cost/benefit of biogas. This analysis found that New Zealand already produces 4.9PJ of biogas, with a further 9.5PJ of untapped potential in the North Island and 9.1PJ in the South Island. Much of the 4.9PJ produced now is flared, and a significant proportion of the current and potential biogas is from municipal solid waste (see excerpt 1 in Attachment 2).</p> <p>The potential to produce 23.5PJ of biogas a year could reduce New Zealand’s annual emissions by 3.7mtCO₂-e, supporting up to 27% of efforts needed in emissions reduction across waste, energy, and agriculture, and up to 11% of the targeted 24-47% reduction needed in biogenic CH₄. The biomethane produced could bridge 9% of the gap to the target of 50% renewable energy by 2035. This opportunity is significant, and it is important that technical regulations do not restrict this or inadvertently reduce investment confidence in certain biogas projects, such as at landfill.</p> <p>The consultation document notes that the proposed amendment is not expected to have material economic impacts but does not acknowledge that an amendment which facilitates biogas projects has the potential for benefits for emissions, waste targets, displacement of natural gas, and economic wellbeing co-benefits.</p> <p>In March 2024, Powerco announced two initiatives underway to take steps towards using biogas in our gas network, one of which involves landfill gas at an existing facility. While it is early days yet, it is clear there is significant potential for more projects at existing landfills, many likely involving off-site end use (destruction). In terms of the emissions and ETS purpose, there is no difference if that destruction occurs onsite or offsite.</p> <p>As our announced projects progress, Powerco is reviewing the ETS for the full supply chain of the renewable gas process including landfill (or other source), anaerobic digestion, processing into renewable natural gas and distribution/use of the gas, to understand any additional barriers or opportunities. We would like to share our findings and additional considerations for the ETS as our projects develop. The ETS regulation must establish optimal provisions for the adoption of renewable natural gas in New Zealand and we would like to work with the Ministry on the broader ETS settings, to incentivise biogas production in the most appropriate way.</p>

¹ For example the DETA technical report released in April 2024 with the Climate Change Commission consultation on emissions budget 4 ([Climate commission modelling and data for process heat](#)), and the GIC Gas Supply and Demand Study 2023 [Gas Supply and Demand - Gas Industry](#) completed by EY.

² Vision for biogas in Aotearoa New Zealand, Blunomy October 2023. Available [on our website](#)

Topic	Powerco response
<p>Additional improvements:</p> <ul style="list-style-type: none"> - DEFs for renewable gas activities and - Supporting a voluntary offset market 	<p>The consultation asks for feedback on improvements or clarifications for future ETS updates. We have commented above that further improvements in respect of biogas production may be justified. We also comment here on two additional matters.</p> <p>Firstly, consider DEFs or published emission factors or other measures for renewable natural gas activities. This would sit alongside DEFs for natural gas activities for participants who opt into the NZ ETS for the renewable gas they purchase, and can then report their emissions based on use of renewable natural gas or blended gas. This would also support consistent calculation of bioenergy emissions/removals for renewable energy certification for biogas. We consider a government endorsed renewable gas certification scheme is a key enabler for renewable gas uptake. We recommend the Ministry review suitable emissions factors for renewable gas activities to support both a certification scheme and reporting gas use (including by opt-in participants).</p> <p>Secondly, development of a formal framework for voluntary participation in credible emissions reductions to sit alongside the ETS would support wider domestic decarbonisation and avoid New Zealand businesses being forced to invest in offshore decarbonisation and emissions removal projects. This could build on existing guidance but provide a formally endorsed framework.</p> <p>The voluntary offset market is at a critical stage in New Zealand. 2023 marked the first year that many of New Zealand’s largest companies and financial institutions commenced mandatory climate-related disclosures. As organisations develop, set and report on emissions reductions targets, many will be considering the use of voluntary market offsets to provide a climate positive response for those emissions that cannot be reduced.</p> <p>The ability for the voluntary carbon market to ‘fill the gaps’ in New Zealand’s climate mitigation is currently limited. Domestic projects are likely to have a range of other environmental, social and stakeholder engagement benefits for the communities in which New Zealand businesses operate. However, at present, outside of the ETS there are relatively few options to source New Zealand-generated and credible gross or net emissions reduction projects. Given the potential double-counting credibility issue associated with utilising NZUs without commensurate Nationally Determined Contributions adjustments, many New Zealand corporates are forced to look overseas.</p> <p>We strongly recommend that the Ministry prioritise consideration of how the ETS could provide a clear, readily available and credible source of domestically generated voluntary market offsets, complementary to the ETS compliance market.</p>

Table 2 Powerco responses – Annual updates to ETS limits and settings

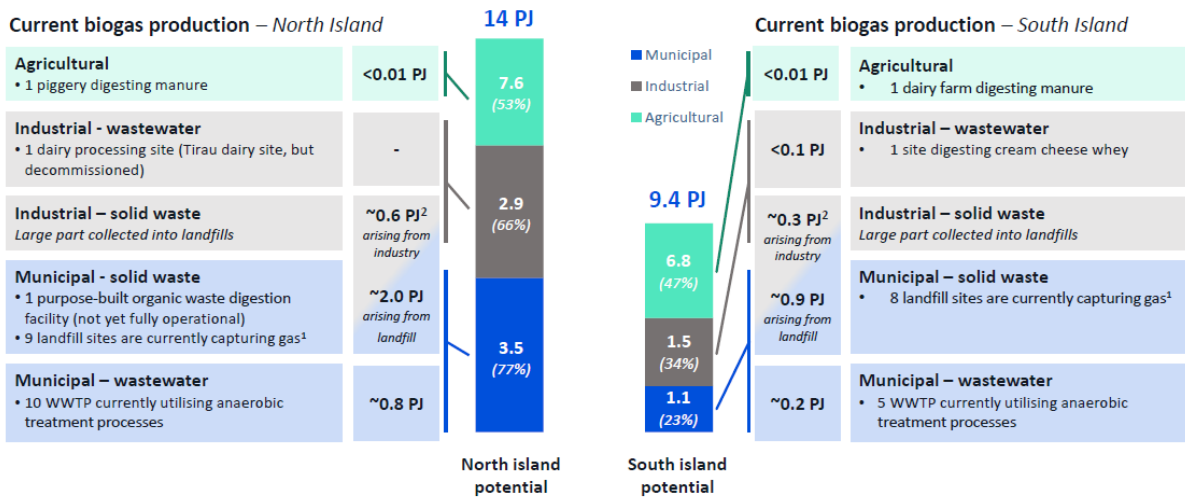
Topic	Powerco response
<p>Unit limits, price control and cost containment</p>	<p>Powerco does not have specific feedback on this part of the consultation. However we strongly support a functional ETS and stable market through policy certainty.</p> <p>While we understand that adjustments may be required for the ETS to continue to achieve its objective, we promote steady and predictable New Zealand Unit (NZU) settings as a critical signal to support businesses to make the necessary investments in decarbonisation and electrification to meet the 2050 target. Adjustments to the ETS should seek to avoid policy uncertainty, market instability and price volatility. A practice of updating the ETS every year has introduced significant uncertainty to the market and is unnecessary.</p>

Topic	Powerco response
	<p>Decarbonisation projects are capital intensive and require predictability in pricing to support business cases. Without a consistent and predictable price signal, emitters (or energy intensive businesses) are unlikely to make decarbonisation investments of the scale necessary to achieve the Climate Change Response Act's 2050 targets, or other investments to grow their business. This risks emissions leakage offshore or premature reduction of industry in New Zealand as we work towards our 2050 targets.</p> <p>Any changes to the ETS, particularly those that might impact the value of forestry units, should only apply prospectively. Retrospective application of any changes would not only undermine existing property rights in those units (and forestry holdings more generally) but would also effectively penalise early movers in the voluntary market who have sought to invest in carbon removals as a mechanism to enhance climate action.</p>

Attachment 2 – Excerpts from Blunomy report³

The North Star and counterfactual scenarios

Currently ~4.9 PJ of biogas is produced in NZ, with a further ~11 PJ of untapped theoretical potential in the North Island alone



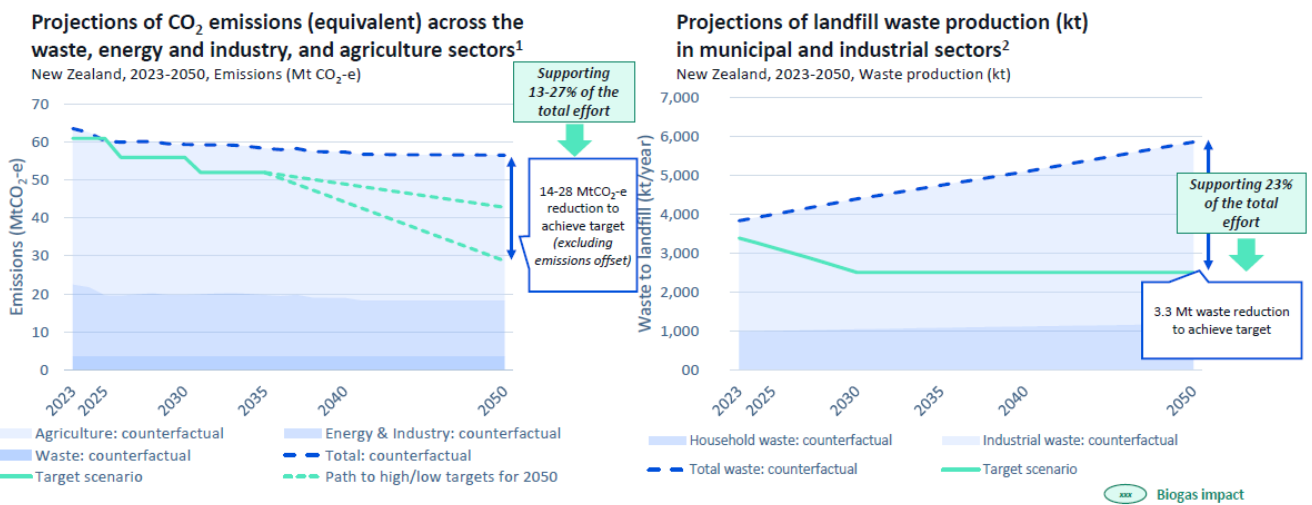
Notes: [1] out of 47 sites listed in the Gas Transition Plan – Biogas Research Report [2] Total industrial biogas is 0.9 PJ in NZ. Split between North Island and South Island based on population
Sources: Gas Transition Plan – Biogas Research Report, Wood Beca; Biogas and Biomethane in New Zealand, EECA, Beca, Fonterra & Firstgas Group

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The North Star and counterfactual scenarios

The North Star scenario could support addressing up to 27% of efforts for emissions reduction and 23% of efforts for wastes reduction



Notes: [1] Targets for 2050 taken from Inaia Tonu Nei headwinds/tailwinds scenarios for paths to net zero, together with the 24-47% biogenic CH₄ reduction target: emissions in these sectors are offset by negative emissions from the forestry sector to achieve net zero. [2] Projections for counterfactual scenarios regarding municipal and industrial landfill waste were derived using population and GDP growth rate respectively. A flat trajectory for target waste was assumed post 2030 for the target scenario, foreseeing further, more ambitious targets.
Sources: New Zealand's First Emissions Reduction Plan, MFE 2022; Gas Transition Plan - Biogas Research Report, Wood Beca 2022; New Zealand's Greenhouse Gas Inventory, MFE 2020

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³ Full report: Vision for biogas in Aotearoa New Zealand, Blunomy October 2023. Available [on our website](#)

Attachment 3 – Information about Powerco and our network

Providing an essential service

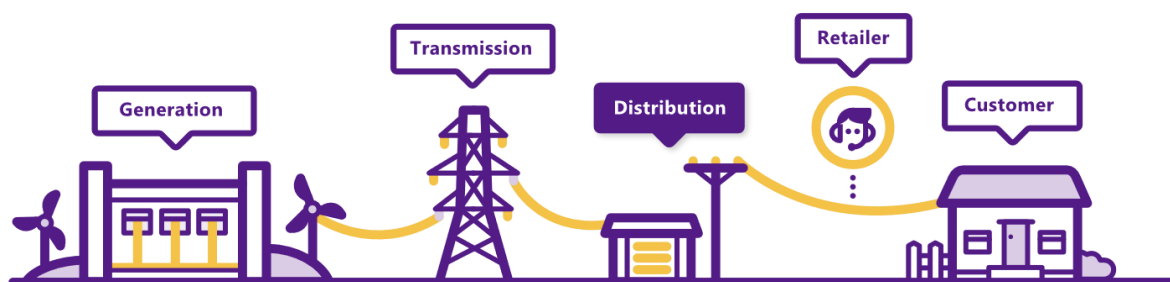
We bring electricity and gas to around 1 million kiwis across the North Island. We're one part of the energy supply chain. We own and maintain the local lines, cables and pipes that deliver energy to the people and businesses who use it. Our networks extend across the North Island, serving urban and rural homes, businesses, and major industrial and commercial sites. We are also a lifeline utility. This means that we have a duty to maintain operations 24/7, including in the case of a major event like an earthquake or a flood.

The cost of operating our business is not dependent on the amount of gas or electricity we distribute in our networks. These costs reflect the need to maintain the safe operation of the network and are mostly driven by compliance with safety regulations. This includes replacing assets when they reach their end of life. Additional costs to grow the size or the capacity of the network are often met by customers requiring the upgrade or new connection.

Under Part 4 of the Commerce Act, Powerco's revenue and expenditure are set by the Commerce Commission as part of monopoly regulation. We are also subject to significant information disclosure requirements, publicly publishing our investment plans, technical and financial performance, and prices. The regulatory regime allows us to recover the value of our asset base using a regulated cost of capital (WACC) set by the Commission, and a forecast of our expenditure. Every five years, the Commission reviews its forecasts and resets our allowable revenue. This process is designed to ensure the costs paid by customers for us to manage and operate our network is efficient given we are a monopoly and an essential service.

Our electricity customers

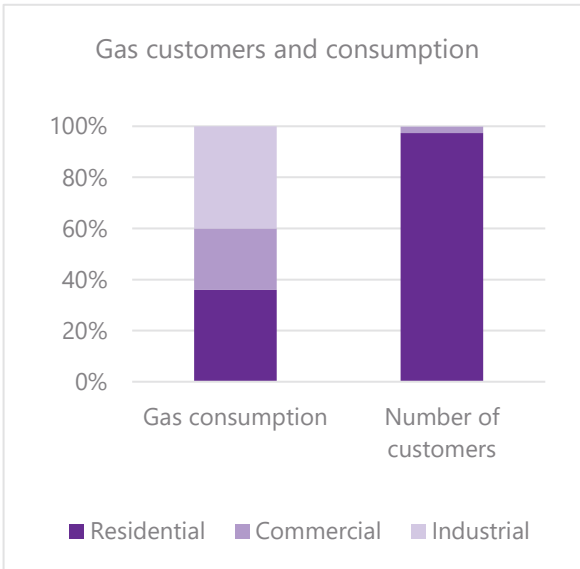
Powerco is New Zealand's largest electricity utility by the area we serve. Our electricity networks are in Western Bay of Plenty, Thames, Coromandel, Eastern and Southern Waikato, Taranaki, Whanganui, Rangitikei, Manawatu and Wairarapa. We have over 29,000 km of electricity lines and cables connecting around 357,000 homes and businesses. Our place in the electricity sector is illustrated below.



Our network contains a range of urban and rural areas, although is predominantly rural. Geographic, demographic, and load characteristics vary significantly across our supply area. Our development as a utility included several mergers and acquisitions that have led to a wide range of legacy asset types and architecture across the network. Powerco is one of 29 electricity distribution companies. Our customers represent around 13% of electricity consumption (similar in magnitude to the Tiwai aluminium smelter) and around 14% of system demand. Powerco's

network is almost three times the size of Transpower’s in terms of circuit length. The peak demand on our combined networks (2023) was 974 MW, with an energy throughput of 5,225 GWh.

Our gas customers



Powerco is New Zealand’s largest gas distribution utility. Our gas pipeline networks are in Taranaki, Hutt Valley, Porirua, Wellington, Horowhenua, Manawatu and Hawke’s Bay. We have over 6,200 km of gas pipes connecting to around 114,000 homes and businesses. Our customers consume around 8.6 PJ of gas per year.

Our industrial customers are less than 1% of our customer base and consumer approx. 40% of gas on our network. Our residential customers are 97% of our customer base and consume approx. 35% of gas on our network. The remaining 25% of gas is consumed by our commercial customers.

Around 30% of our larger customers are in the food processing sector, around 20% in the manufacturing sector and around 10% in the healthcare sector.

Our network footprint

Our network represents 46% of the gas connections and 16% of the electricity connections in New Zealand. We operate assets within six regions and across 29 district or city council areas.

