

Proposed changes to New Zealand Emissions Trading Scheme regulations 2024

Consultation document



Ministry for the
Environment
Manatū Mō Te Taiao



Te Kāwanatanga o Aotearoa
New Zealand Government

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About this consultation

This consultation is on proposals to update regulations relating to the New Zealand Emissions Trading Scheme (NZ ETS). These regulations are made under the Climate Change Response Act 2002 (the Act).

This consultation primarily seeks the insight, evidence, and perspectives of mandatory and voluntary participants in the NZ ETS who may be directly affected by the regulatory changes proposed. We also welcome submissions from anyone with an interest in the regulations for the NZ ETS on one or more of these matters.

We are also consulting on a specific subset of NZ ETS regulations for 'unit limits and price control settings' (NZ ETS settings), which must be updated every year. The proposals relating to NZ ETS settings are presented in their own [consultation document](#).

Background

The role of the NZ ETS

The NZ ETS is the Government's key tool to help New Zealand meet its:

- international obligations under the United Nations Framework Convention on Climate Change and its Paris Agreement
- 2050 targets: net zero greenhouse gas emissions (except biogenic methane) and a 24 to 47 per cent reduction in biogenic methane
- emissions budgets: a set of descending interim targets to reach the 2050 emissions reduction target.

All sectors of New Zealand's economy, apart from agriculture, pay for their emissions through their NZ ETS surrender obligations, or at a price derived from the value of the New Zealand Unit (NZU) through the Synthetic Greenhouse Gas Levy (SGG Levy).

The agriculture sector reports on its emissions through the NZ ETS but does not currently have surrender obligations (that is, it does not face a cost on its emissions). The Act currently provides for processor-level surrender obligations to come into effect on 1 January 2025. However, these provisions may be deferred or repealed before coming into effect, as the Government has committed to implementing a fair and sustainable pricing system for on-farm agricultural emissions by 2030.

The SGG Levy uses a price derived from the NZU to put an emissions cost on a subset of gases imported through the goods and vehicles in which they are contained. The two gases covered by the SGG Levy are hydrofluorocarbons and perfluorocarbons, commonly contained in refrigerators, freezers, heat pumps, and air conditioners (including air-conditioning units in vehicles). Other synthetic greenhouse gases used for other purposes attract obligations directly under the NZ ETS.

How does the NZ ETS achieve emissions reductions and incentive removals?

The NZ ETS supports net emissions reductions by:

- requiring businesses to measure and report on their greenhouse gas emissions
- pricing emissions and removals
- requiring businesses to surrender one 'emissions unit' (NZU) to the Government for each tonne of emissions they are responsible for under the NZ ETS
- limiting the number of units supplied into the scheme through auctioning and industrial allocation.

The Government sets and reduces the number of units supplied into the scheme over time, apart from units supplied for removal activities. This limits the total volume of emissions that can be emitted by participants in the scheme, in line with New Zealand's emission reduction targets.

Additional units are also available to participants who carry out activities that remove carbon from the atmosphere (such as forestry), which are not limited by the unit supply set by the Government.

Businesses who participate in the NZ ETS can buy and sell units from each other. The price for units reflects supply and demand in the scheme. This price signal allows businesses to make economically efficient choices about how to reduce emissions.

The role of the NZ ETS in the emissions reduction plan

In 2022, the then Government set the first three emissions budgets, which placed limits on the emissions that New Zealand can produce for the periods 2022–25, 2026–30 and 2031–35. The first [emissions reduction plan](#), published on 16 May 2022, describes how we are going to meet each emissions budget, thereby making the progress necessary to achieve our 2050 target. The focus of this emissions reduction plan was on the first budget period (2022–25).

This target includes reducing all domestic greenhouse gas emissions to net zero by 2050, except for biogenic methane, which must reduce by 10 per cent by 2030 (compared to 2017 levels) and by 24 to 47 per cent by 2050 (compared to 2017 levels).

The emissions reduction plan comprises:

- policies and strategies for specific sectors (such as transport, waste, heat, industry, power, building and construction, agriculture, and forestry) to reduce emissions and increase removals of greenhouse gases from the atmosphere and from New Zealand's reported emissions
- a multi-sector strategy to meet emissions budgets and improve how specific sectors adapt to the effects of climate change
- ways to mitigate the impacts of reducing emissions and increasing removals on employees and employers, regions, iwi and Māori, and wider communities
- additional policies and strategies necessary to reduce emissions and increase removals.

The emissions reduction plan sets out measures that reinforce each other – including emissions pricing through the NZ ETS. Many complementary measures and actions in the emissions

reduction plan are designed to support firms, households, workers, and communities to meet the challenges and seize the opportunities that climate-related transition brings.

The Government is due to publish the second emissions reduction plan by the end of 2024.

How businesses interact with the NZ ETS

Reporting emissions and surrendering emission units

Some people and businesses must report their emissions, and some also have to surrender emission units to cover their direct greenhouse gas emissions or the emissions associated with their products.

To do this, businesses need to calculate the emissions from their activity over a calendar year, report to the Environmental Protection Authority (EPA) by the end of March the following year, and then acquire and surrender units before the deadline. The requirement that participants must procure NZUs effectively puts a price on their emissions.

Many businesses use a default emissions factor (DEF) or unique emissions factor (UEF) in their emissions reporting, which can be used to convert reported data (such as production data) into an emissions value. DEFs are typically set directly in regulations, but participants must provide additional evidence and seek approval to use a UEF.

Removing greenhouse gases from the atmosphere or New Zealand's reported emissions

Some people and businesses may have opportunities to earn NZUs by carrying out an eligible removal activity. This must be an activity that reduces emissions reported in New Zealand's Greenhouse Gas Inventory – for example:

- a 'forestry removal activity,' in which post-1989 forest growth sequesters carbon dioxide from the atmosphere
- an 'other removal activity,' which can include where an eligible product embeds a substance permanently (or at least until it has been exported), if that substance would otherwise emit greenhouse gases to the atmosphere, as well as with exporting synthetic greenhouse gases in bulk or in goods.

This opportunity for removal activities ensures NZ ETS costs are not incurred for emissions that do not occur in New Zealand, in line with international reporting approaches.

Receiving industrial allocation

Some businesses are eligible to be allocated emission units under the NZ ETS. This 'industrial allocation' reduces the risk of emissions leakage (that is, the risk of companies located within New Zealand losing market share or shifting overseas to avoid emissions pricing). This could theoretically result in an increase in global emissions – or at least may not result in a true reduction – if the jurisdiction to which the emissions leak has less stringent emissions reduction policies.

If such companies apply for and receive an allocation through the NZ ETS, they can trade their units or use them to meet any NZ ETS obligations that they might have.

Taking part in auctions

Auctions of NZUs take place in each quarter of the year. These auctions are a key feature of unit supply into the NZ ETS. An auction calendar must be published by 30 September every year, which includes auction dates for the next calendar year and the number of units for sale on each date.

Anyone who holds an account in the New Zealand Emissions Trading Register (the Register) can register to participate in these auctions, which can include non-mandatory participants as well as those with mandatory surrender obligations.

Regulations set the volume of units available for auction in NZ ETS auctions, along with auction price settings. Consultation on proposals that affect specific NZ ETS settings is also currently under way. The NZ ETS settings consultation document contains proposals that affect those volumes and settings.

Scope of regulations in this consultation

A set of regulations and Orders in Council supports the NZ ETS to run efficiently and accurately. This means that, periodically:

- existing regulations need to be amended or replaced
- new regulations need to be created
- technical factors need to be updated to keep them current.

In this document, the Government is proposing changes to a subset of these regulations, outlined in table 1.

Table 1: Regulations affected by proposals in this document

Regulations under the Act	Abbreviated to...
Climate Change (Auctions, Limits, and Price Controls for Units) Regulations 2020	Auction Regulations
Climate Change (Liquid Fossil Fuels) Regulations 2008	LFF Regulations
Climate Change (Other Removal Activities) Regulations 2009	ORA Regulations
Climate Change (Stationary Energy and Industrial Processes) Regulations 2009	SEIP Regulations
Climate Change (Unique Emissions Factors) Regulations 2009	UEF Regulations
Climate Change (Unit Register) Regulations 2008	Unit Register Regulations
Climate Change (Waste) Regulations 2010	Waste Regulations

Most of the proposed changes to these regulations are technical and operational, involving either:

- simple recalculations of values listed in the regulations based on new data, which do not entail policy decisions
- minor clarifications and corrections to the text of the regulations, which do not change the policy intent.

The parallel consultation on NZ ETS settings also involves making changes to the Auction Regulations.

This consultation on the regulations does not include:

- any changes to the overarching architecture or purpose of the NZ ETS, as provided for in the Act
- regulations that are specific to the agriculture or forestry sectors (while noting that some changes do affect all sectors)
- reassessment of the level of or commitment to the international obligations, emissions budgets, or 2050 target (which the proposed changes are intended to support).

Criteria for assessing options

Regulations are regularly updated to support the NZ ETS in meeting its objectives. For each proposal in this document, options are assessed against the status quo using relevant criteria.

The approach for assessment of each option against the status quo for each of the criteria is described in the key below:

Key for assessing options against the status quo

- ++** much better than the status quo
- +** better than the status quo
- 0** about the same as the status quo
- worse than the status quo
- much worse than the status quo

A total score is then presented, determined by the total number of **+** scores given, less the total number of any **-** scores given. There is no greater weighting given to any one of the below criteria above another. For example, a proposal given **3+** and **1-** will receive a total score of **2+**.

The status quo (in which no change is made to the current provisions in regulations) is always scored as **0**, providing a benchmark against which all other options are compared.

Changes must be accurate, efficient, and clear, and they must work successfully as a collective. For each proposal, options are assessed against the status quo using the following criteria.

- **Alignment** with the objectives of the NZ ETS. The objectives are to support and encourage global efforts to reduce the emission of greenhouse gases by helping New Zealand meet our international climate obligations, as well as our 2050 domestic target and emissions budgets.
- **Accuracy** – by ensuring that the methodologies and emissions factors in the regulations result in calculations of emissions that are as close as practically possible to those that are released into the atmosphere from the activity.
- **Efficiency** – regarding administrative and compliance costs and burdens for participants and the Government.
- **Clarity** – the regulations must be unambiguous and consistent, so that the obligations and costs imposed on regulated parties are equivalent and unavoidable.

Your views

We want to know your thoughts on the options in this consultation document for proposed updates to NZ ETS regulations. Your responses will help us understand the issues and options, and their impact.

The following sections explain the issues, present the options and analysis, and include questions for you to consider. Your views will help us fill information gaps and gauge support for the options.

The questions presented at the end of each section are also collated toward the end of the document, under [Consultation questions](#), along with general questions that apply across the overall regulatory update process.

We are also specifically seeking feedback on the impact of these proposed changes on Māori

We recognise that Māori have a significant interest in climate change action and the NZ ETS.

We have assessed that there is unlikely to be any specific impact on Māori resulting from any of the proposed updates in this consultation, but we acknowledge the possibility of gaps in our analysis. Therefore, as part of this consultation, in addition to questions on each proposed update, we are specifically requesting that submitters consider whether any of the proposed changes could have an impact on Māori, whether positive or negative.

Consultation process

The consultation for the proposals in this document and for those relating to NZ ETS settings will close at 5:00 pm on 14 June 2024.

Once we have considered submissions, we will put final proposals to the Minister of Climate Change and Cabinet for consideration. Following Cabinet decisions, any new regulations or amendments to existing regulations will be published in the New Zealand Gazette by 30 September 2024 and will come into force from 1 January 2025.

Submitting your views

For details on sending feedback to us, see the [Consultation questions and providing feedback](#) section toward the end of this consultation document.

Summary of proposals

Table 2: Brief summaries of the proposals in this document

Section A: NZ ETS sector-specific regulatory updates and improvements		
Proposed Update 1	Updating DEFs and UEF methodologies for geothermal activities	<p>Both the DEFs and the UEF methodologies for geothermal activities are out of date and, at minimum, need to be updated. However, we also propose that the entire reporting process can be streamlined, improving emissions reporting accuracy and better recognising mitigations implemented by participants.</p> <p>Currently, geothermal participants report their estimated emissions with reference to DEFs listed in regulations. If they do not consider these accurate, they can provide additional data and apply for a UEF.</p>
Proposed Update 2	Updating DEFs for natural gas activities	<p>Participants who opt into the NZ ETS for the natural gas that they purchase use DEFs listed in regulations to report their estimated emissions, based on where the natural gas was mined.</p> <p>Keeping these DEFs updated can avoid significant compliance cost to these participants in addition to supporting accuracy in the scheme.</p>
Proposed Update 3	Updating DEFs for liquid fossil fuel activities	<p>Liquid fossil fuel participants use DEFs listed in regulation based on the type of fuels consumed in New Zealand. The closure of Refining NZ's Marsden Point Oil Refinery means that 100% of liquid fossil fuel consumed in New Zealand is now imported.</p> <p>Updating liquid fossil fuel DEFs ensures that participants are accurately reporting their emissions.</p>
Proposed Update 4	Improving accuracy for the waste sector	<p>4a – Waste participants can apply for a site-specific UEF that is up to 90% of the DEF, which can better reflect their actual emissions. Updating the UEF regulations for waste corrects a problematic misalignment introduced in 2022.</p> <p>4b – Waste participants applying for a UEF for collection and destruction of landfill gas use national waste composition data (if they do not have historic composition data available) to model the efficiency of the landfill gas capture system. Allowing UEF applicants to use historical national waste composition datapoints improves the accuracy of the model.</p> <p>4c – Currently, UEF applicants for collection and destruction of landfill gas are required to destroy the gas onsite. This proposal would allow landfill gas to be destroyed offsite and still be eligible for a UEF, giving participants more flexibility.</p>
Proposed Update 5	Clarifying how the destruction of synthetic greenhouse gases is recognised	<p>Onshore destruction of synthetic greenhouse gases is provided for in regulations, but the provision is currently unused. If this changes soon, participants should have certainty that the destruction of eligible synthetic greenhouse gases will be recognised, and that they will therefore be awarded NZUs.</p>

Section B: NZ ETS auctioning and operational updates and improvements

Proposed Update 6	Clarifying the definition of qualified person	<p>We propose clarifying the definition of and requirements to be a qualified person, to ensure that only suitable individuals can manage holding accounts for NZUs. This is particularly important where individuals who would otherwise be considered unsuitable under one part of the definition need to be able to manage a holding account if they are a mandatory participant in the NZ ETS.</p> <p>Clarifying the wording would mitigate risk to the integrity of the scheme.</p>
Proposed Update 7	Improving auctioning collateral methodology	<p>The current method for calculating auctioning collateral can result in participants paying for more collateral than necessary. Clarifying the formula used would reduce the upfront cost to participants to engage in auctions.</p>

SECTION A: NZ ETS sector-specific regulatory updates and improvements

Proposed regulatory update 1: Updating DEFs and UEF methodologies for geothermal activities

Background

The default emissions factors (DEFs) for geothermal activities¹ require updating periodically, to:

- include new geothermal participants that have begun operation since the previous update to regulations
- account for changes in the volume of greenhouse gases contained in the geothermal reservoirs.

We are consulting on updating the DEFs contained in table 6 of schedule 2 of the Climate Change (Stationary Energy and Industrial Process) Regulations 2009 (SEIP Regulations), to ensure the effective functioning of the New Zealand Emissions Trading Scheme (NZ ETS) for participants who carry out geothermal activities.

Geothermal participants are required to take geothermal fluid and steam samples to ensure emissions are calculated and reported accurately. Some participants have improved methods for reducing emissions from geothermal activities by re-injecting non-condensable gases (NCGs) back into the geothermal reservoir. If the calculated emissions factor of a participant differs from the DEF by an amount greater than the defined estimated uncertainty, an operator can apply for approval to use a unique emissions factor (UEFs).

We are also consulting on updating clauses 14–17 of the Climate Change (Unique Emissions Factors) Regulations 2009 (UEF Regulations), to reflect improvements in methods for reducing emissions from geothermal activities.

Why update the DEFs for geothermal activities?

Several geothermal plants have started operating since the last update to the regulations. These new participants will need to be added to the list of current participants, along with their corresponding DEFs.

Geothermal electricity generation involves extracting geothermal fluid from a reservoir for use in the electricity generation process. The typical composition of a geothermal reservoir includes brine and several greenhouse gases. These gases are emitted as part of the electricity generation process, reducing the gas content of the reservoir over time.

The DEFs for geothermal participants require updating to account for the change in the gas composition of the geothermal reservoir for each participant. This will ensure that reported emissions remain as accurate as possible, while reducing the need for participants to apply for a UEF.

¹ The term 'geothermal activities' means activities that relate to "using geothermal fluid for the purpose of generating electricity or industrial heat (initial use only)," as set out under [Subpart 1 of Part 3 in Schedule 3](#) of the Climate Change Response Act 2002. An entity that carries out geothermal activities is a 'geothermal participant'.

Why update the UEF methodologies for geothermal activities?

Methods for reducing emissions from geothermal activities have improved over time. Some participants can re-inject up to 100 per cent of the NCGs back into the geothermal reservoir from which they are extracted. This process significantly reduces emissions from geothermal activities.

Participants reducing emissions as part of this process can apply for approval to use a UEF to account for the NCGs re-injected. The existing methodologies for calculating UEFs, outlined in [clauses 14–17](#) of the UEF Regulations, require updating to better accommodate improvements to re-injection processes.

For re-injection to occur, the NCGs are dissolved into condensate in a pressurised chamber (referred to as a vaporiser), mixed with the brine exiting the plant, and pumped back into the reservoir. Any NCGs not dissolved in the condensate are emitted when the steam is vented from the pressurised chamber.

Current regulations allow for the sampling of the condensate as it exits the vaporiser to calculate the amount of NCGs re-injected into the reservoir. In practice, this method carries with it a high level of variability, due to the changes in how a geothermal plant vents steam over time, and is not an ideal method for accurately calculating emissions.

We are proposing that three new methods of measuring emissions be added to the regulations. These methods are described in detail below.

Reporting method A – mass-balance measurement

A ‘mass-balance’ reporting method has been proposed as a solution to the problem of high variability when sampling condensate. In this method, samples and flow measurements of the incoming brine and steam are taken, along with samples and measurements of the outgoing two-phase fluid (brine plus NCGs), as shown in figure 1. The difference between the two measurements is the amount of NCGs emitted into the atmosphere. Some participants already use this method, which has proven to be more reliable than measuring the condensate, as it results in less variability.

Reporting method B – direct gas flow measurement

To achieve a significant level of NCG re-injection, the two-phase fluid (brine plus NCGs) needs to be kept at a high enough pressure for the NCGs to be fully dissolved into the brine. In cases where significant NCG re-injection is taking place, using the standard sampling methods creates issues. The standard sampling method involves drawing the injection brine into a glass rotoflo flask for analysis. This process becomes difficult at high pressure levels, and risks breaking the flask. This method of sampling places a constraint on use of the mass-balance method because, to prevent the flask breaking, samples need to be taken at close to atmospheric pressure.

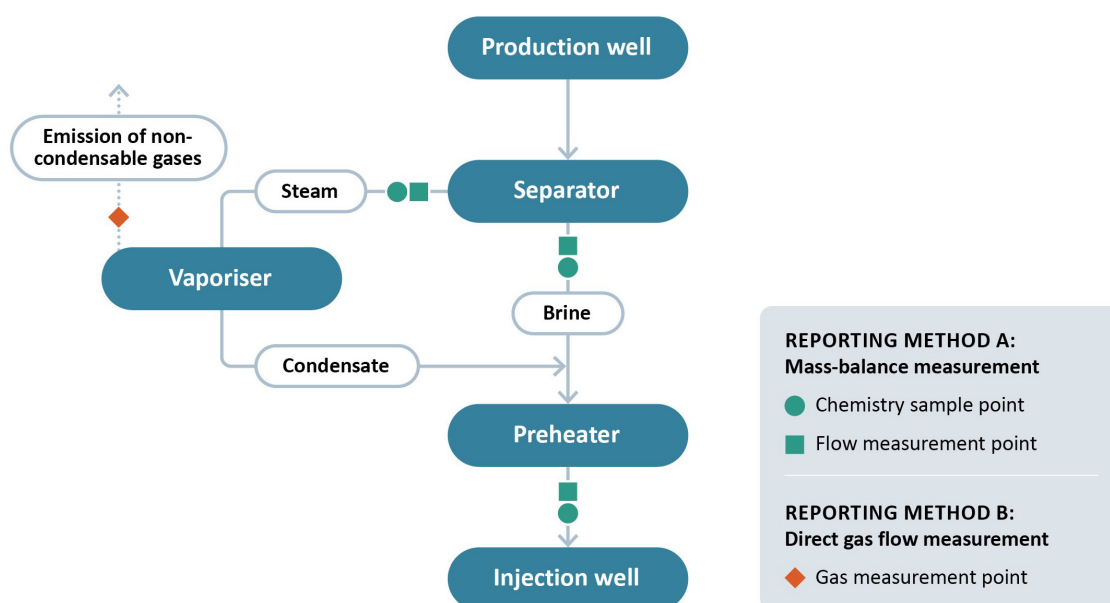
The direct gas flow measurement is a possible solution to the sampling problem. This method involves taking a flow measurement directly from the gas discharge line attached to the vaporiser, as shown in figure 1. From this measurement, the amount of NCGs being emitted can be calculated. This method would require only one sample point – as opposed to the three required by a mass-balance approach – and would allow for samples to be taken at any level of NCG re-injection.

Re-injecting 100 per cent of NCGs

Some participants have achieved 100 per cent re-injection of NCGs. At present, measuring and reporting this is difficult, due to the issues with sampling methods mentioned above. A permanent connection of the NCG offtake to a re-injection pipeline could ensure that no gases are emitted. Once set up, an inspection by a recognised verifier would be required before an emissions factor of zero could be approved.

With this implemented, geothermal participants can avoid the full sampling/testing process for UEF verification, which can be a costly exercise. Adding an allowance for this to the regulations would create a further incentive for uptake of this mitigation, as well as reducing operational costs for participants.

Figure 1: Diagram of measurements required to calculate a UEF using the mass-balance and direct gas flow methods in a binary geothermal plant



Why improve the overall regulatory approach for geothermal activities?

Most geothermal participants use a UEF and re-apply frequently for an updated UEF; meanwhile, the DEFs specified in regulations are updated in parallel. Therefore, even though most participants have individual DEFs specified in regulations, they are essentially redundant, because it is more accurate for the participants to seek approval for and use UEFs in their emissions reporting.

Not all sector-specific reporting under the NZ ETS functions this way. For example, natural gas activities have a routine reporting process, in which information reported in emissions returns is used to directly calculate mandatory participants' emissions. This avoids the need for any emissions factors in regulations,² allowing reporting by mandatory participants to be more accurate and consistently up to date than with a DEF, while avoiding the additional cost and compliance burden of seeking approval to use a UEF.

² Natural gas DEFs do exist in regulations, but these are used by opt-in participants who purchase natural gas from natural gas miners. The miners themselves report on their actual emissions directly, and do not use these DEFs.

A similar approach could be developed and adopted for geothermal activities. Most current geothermal participants can directly report their emissions through continuous or regular measurement, using technology already in place. Rather than running separate DEF and UEF processes in parallel, a participant's obligation could be directly calculated using their actual emissions, allowing them to receive the benefits of a UEF through a streamlined process that reduces cost and compliance burden.

This would result in similar calculations taking place behind the scenes to the process to update the DEFs in regulations, or that occur when the participant seeks approval for a UEF, but could happen reactively rather than rely on regulatory update. Once such an approach was established, it could also create the opportunity to reduce compliance cost and burden for participants, for example by allowing participants who consistently reinject 100 per cent of NCGs to have decreased verification frequency.

In addition, no generic DEF (i.e. for use by 'any other plant or process') would need to be set, as there are no opt-in participants for geothermal activities, and it would be expected that any new geothermal plants implement direct measurement and reporting of their actual emissions to comply with their obligations under the NZ ETS.

Alternatively, a similar outcome could be achieved by basing the DEFs for geothermal participants on an average of approved UEFs from recent years. While this would still require participants to step through the UEF approval process, and the associated costs, if they can prove 100 per cent reinjection and receive a UEF of zero over subsequent years, their DEF would also drop to zero. In this scenario, they could choose to fall back on the DEF and no longer seek approval of a UEF, maintaining the emissions factor of zero without the high compliance cost and burden so long as 100 per cent reinjection continued.

Options

Option 1: Status quo

Under this option, the DEFs and UEF methodologies in the regulations will not be updated.

- No new geothermal operations will be added to the table, and participants will continue to use the current DEFs to calculate emissions for geothermal activities.
- No changes will be made to the methodologies for calculating UEFs. Participants will continue to use the current methodologies set out in the regulations.

Option 2a: Directly update the DEFs in SEIP Regulations

Updates to the DEFs for each geothermal plant will account for the changes to the gas composition of geothermal reservoirs, which, in turn, improves the accuracy of emissions calculations.

Several geothermal plants have opened since the regulations were last updated. Updating the table of DEFs will involve adding these new geothermal participants, along with their corresponding DEFs.

We have received advice on what technical changes should occur, and we recommend that the following DEFs (for both new and existing participants) are updated as outlined in table 3.

Table 3: Existing and proposed DEFs for geothermal participants

Plant ³	Participant	Plant type ⁴	Existing DEF	Proposed DEF
<i>Plants or processes that use geothermal steam to produce electricity or industrial heat</i>				
Kawerau II	Mercury	Flash plant	0.0202	0.0125
Kawerau Industrial	Various	Direct use	0.0202	0.0174
Kawerau KA24	Eastland	ORC	0.0202	0.0131
Miraka Milk	Tuaropaki Trust	Direct use	New	0.0053
Mokai I and II	Mercury	Combined	0.0053	0.0046
Nga Awa Purua	Mercury	Flash plant	0.0181	0.0082
Ngāwhā I and II	NGL	ORC	0.0930	0.0555
Ngāwhā III	NGL	ORC	New	0.0655
Ngā Tamariki	Mercury	Combined	New	0.0091
Ohaaki	Contact	Flash plant	0.0604	0.0320
Poihipi Road	Contact	Flash plant	0.0049	0.0051
Rotokawa I	Mercury	ORC	0.0228	0.0128
Te Ahi o Maui	Eastland	ORC	New	0.0101
Te Huka	Contact	ORC	New	0.0074
Te Mihi	Contact	Flash plant	New	0.0045
TOPP1	Eastland	ORC	New	0.0107
Wairakei Station Site	Contact	Flash plant	0.0051	0.0021
Any other plant or process under this category			0.0300	(No change)
<i>Plants or processes that use geothermal fluid to produce electricity or industrial heat through a process other than production of geothermal steam</i>				
Mokai Greenhouse	Tuaropaki Trust	Direct use	Nil	Nil
Tauhara Tenon	Contact	Direct use	0.0009	Nil
Any other plant or process under this category			0.0009	(No change)

Option 2b: Update methodologies UEF and SEIP Regulations

This option involves updating current methodologies for calculating UEFs and adding additional methods, to better account for improvements to processes for re-injecting NCGs. This will require changes to both UEF and SEIP Regulations.

The sampling methods allowed by the regulations are not sufficient when there is significant re-injection of NCGs occurring at a plant. Updates to the methodologies will include sampling and analysis procedures that could be carried out at the high-pressure levels required to enable significant levels of NCG re-injection. The recommended additions to the methodologies are the mass-balance approach, direct gas flow measurement, and a verifiable set-up for 100 per cent re-injection of NCGs, all of which are described above.

³ Some names have been updated to reflect legal business names, which will be reflected in amended regulations alongside updated DEF values.

⁴ ORC = Organic Rankine Cycle power plant; Flash plant = Steam Rankine Cycle power plant; Combined = Combined Cycle power plant; Direct use = the geothermal fluid itself is used by the participant.

Option 3: Improve the regulatory approach (preferred option)

Under this option, the structure of the regulations that apply to geothermal activities would remove the DEFs and UEFs, or otherwise streamline the process by which they are established.

Data received from participants through their emissions reports could directly determine their emissions obligations, whether through bypassing the use of UEFs and DEFs entirely, or by allowing consistent UEFs to inform updated DEFs in regulations if there is no (or negligible) change over a period of years (e.g. by setting the DEF based on a rolling average of recent UEFs).

Updates to the methodologies used for calculating UEFs would still need to be made to reflect current mitigation opportunities around re-injection of NCGs, as this information would still be necessary under an improved approach.

Analysis

Table 4 outlines an assessment of the options described above. To assist with interpretation of the analysis in the table, see the [Criteria for assessing options](#) section.

Options 2a and 2b could be progressed separately or together. However, Option 3 would entirely replace Option 2a. The methodologies proposed for inclusion as part of Option 2b will be relevant for implementing Option 3, but they would apply to the continuous monitoring approach, rather than being used in the context of UEFs.

Table 4: Options for updates to NZ ETS regulations for geothermal activities

Criteria	Option 1: Status quo	Option 2a: Directly update the DEFs in SEIP Regulations	Option 2b: Update methodologies in UEF and SEIP Regulations	Option 3: Improve the regulatory approach
Alignment	0	+	+	+
		Aligns with the proper functioning of the NZ ETS.	Aligns with the proper functioning of the ETS.	Aligns with the proper functioning of the NZ ETS.
Accuracy	0	+	+	++
		Reported emissions and associated NZ ETS costs more consistent with actual emissions.	Reported emissions and associated NZ ETS costs more consistent with actual emissions.	Reported emissions and associated NZ ETS costs more consistent with actual emissions, and maintain this consistency over time.
Efficiency	0	+	+	+
		Potentially allows participants currently using a UEF to use an updated DEF instead.	Reduces the need for participants to undergo lengthy and expensive sampling and analysis procedures.	Reduces the need for participants to apply for approval to use a UEF, but less simple at this stage in the process than maintaining the existing approach.
Clarity	0	0	0	+
		No change for participants in how they report their emissions.	No change to how participants calculate their emissions. Sampling methods for calculating UEFs are well understood.	Streamlines the duplicated process for determining emissions factors for participants, but potential uncertainty in the short term as a transition takes place.
Overall assessment	0	3+	3+	5+

The expected costs and benefits of these options are as follows.

- Historical updates following the same process indicate high evidence certainty that the total monetary costs of Options 2a and 2b are low, and the total monetary benefits are low, for relevant participants and the Government.
- Engagement with relevant sectors and experts indicate moderate evidence certainty that the total monetary cost of Option 3 is low, while the total monetary benefit is medium, for relevant participants and the Government.
- Any change improving the accuracy of the NZ ETS positively contributes to progress toward New Zealand’s climate targets and budgets. Other than this, there are no expected monetary impacts or benefits from this proposal that can be quantified for the wider government, the general public, or New Zealand’s overall economy.

Questions

Questions

1. Do you have any feedback or relevant evidence about the proposed DEF values for directly updating the SEIP Regulations for geothermal activities?

2. Do you have any feedback or relevant evidence about the proposed UEF methodology additions for directly updating the UEF Regulations for geothermal activities?

3. In your view, for geothermal activities within the NZ ETS, is it better to directly update the existing regulatory structure or take a new approach? Why?

Proposed regulatory update 2: Updating DEFs for natural gas activities

Background

The prescribed DEFs for natural gas fields need regular updating due to changes in the composition of mined natural gas over time, and for the opening of new fields. Historically, this update has occurred most years, to maintain the accuracy of emissions reported under the NZ ETS. Updates this year will ensure that regulations catch up with any changes from the past two years, following deferral of the 2023 updates.

Natural gas miners, along with gas-purchasing (opt-in) participants to the NZ ETS who buy more than two petajoules of natural gas in a year, use the methodologies and emissions factors in the SEIP Regulations to calculate their emissions.

Gas miners are required to run various tests on their gas to calculate emissions specific to their field, and to report these data in their emissions returns. Their obligation under the NZ ETS is therefore based directly on their total emissions (as opposed to estimated using activity data and an averaged DEF).

The actual emissions data from gas miners are used to set the table of DEFs in [table 10 in Schedule 2](#) of the SEIP Regulations. As the gas miners report on their actual emissions, these values are not used to determine their NZ ETS obligation, but the NZ ETS obligations of any opt-in participants. Opt-in participants are not required to perform the same tests on the gas that they purchase as the gas miners must perform. Instead, they can report with only two datapoints: the total petajoules purchased and the appropriate DEF, by referring to the prescribed DEF for the field from which the gas was purchased.

The same table in the SEIP Regulations also includes a national average DEF, which is used to estimate the emissions associated with the storage of natural gas. Once stored, quantities extracted from storage cannot be associated back to a specific natural gas field, creating a need for the average emissions factor.

This consultation document does not propose specific values. This is because the precise changes can only be determined once the EPA has reviewed the emissions returns of gas miners. The data are considered sensitive until that point. The emissions returns that will form the basis of the values in the regulations were due to the EPA by the submission deadline (31 March 2024).

Why update DEFs for natural gas?

The table of DEFs for natural gas needs to be updated regularly because the chemistry of natural gas from any one field is not constant, and because new fields open. If the DEFs are not updated, opt-in participants have two options, neither of which are ideal.

- They can inaccurately report their emissions using the out-of-date DEFs. This would affect both the quality of the data received through the NZ ETS, and the emissions cost the opt-in participants face.
- They can seek more detailed information from gas miners. This would ensure their emissions estimate is accurate, which would avoid the problems of using out-of-date DEFs, but would impose additional administrative and compliance costs on both mandatory and opt-in participants.

Options

Option 1: Status quo

Under this option, the DEFs in the regulations will not be updated. No new natural gas operations will be added to the existing table, and opt-in participants will continue to use the current DEFs to calculate emissions for purchasing natural gas.

Option 2: Update the SEIP Regulations

The DEFs for each natural gas field will be updated using data from emissions returns. This increases the accuracy of the NZ ETS and avoids additional administrative and compliance costs to participants.

Feedback from previous consultations included strong support from opt-in participants and some gas miners for retaining and regularly updating the DEFs in regulations.

The DEFs were last updated on 1 January 2023, so they can be used for reporting emissions for the 2023 calendar year. No update was made for the 2024 calendar year.

Analysis

Table 5 outlines an assessment of the options described above. To assist with interpretation of the analysis in the table, see the [Criteria for assessing options](#) section.

Table 5: Options for updates to NZ ETS regulations for natural gas

Criteria	Option 1: Status quo	Option 2: Update the SEIP Regulations
Alignment	0	+ Aligns with the proper functioning of the NZ ETS.
Accuracy	0	+ Reported emissions and associated NZ ETS costs are more consistent with actual emissions.
Efficiency	0	+ Avoids opt-in participants needing to obtain additional data for reporting.
Clarity	0	0 No change for participants in how they report their emissions.
Overall assessment	0	3+

This proposal is not expected to have material economic impacts.

Questions

Questions

4. Do you have any feedback or relevant evidence about the proposed update to DEFs for natural gas fields in the SEIP Regulations?
5. Do you support continuing to retain and regularly update the DEFs for natural gas fields? How might we improve this process?

Proposed regulatory update 3: Updating DEFs for liquid fossil fuel activities

Background

Since the establishment of the NZ ETS, the DEFs for liquid fossil fuels have been regularly reviewed to ensure they accurately represent the average quality of fuel consumed in New Zealand. This process has resulted in only infrequent updates to the [Climate Change \(Liquid Fossil Fuels\) Regulations 2008](#) (LFF Regulations), with the last major update in 2014.⁵

Nevertheless, the liquid fossil fuel market has shifted in the last decade. The original DEFs were primarily based on the quality of fuel produced at the Marsden Point Oil Refinery operated by Refining NZ, with domestically refined fuel being comparable to import fuel quality at the time. Since the 2014 update, the proportion of imported fuel in the market has increased, but the average fuel quality has remained largely consistent, despite significant variation in quality between domestically refined and imported fuel.

However, with the closure of the Marsden Point Oil Refinery in 2022, 100 per cent of the liquid fossil fuel that New Zealand consumes is now imported. This substantively changes the average quality of fuel consumed, and all liquid fossil fuel DEFs are out of date for accurately representing emissions from fuel consumption in New Zealand.

Why update DEFs for liquid fossil fuels?

Officials regularly review the DEFs in regulations for liquid fossil fuels. This review process is carried out by the Ministry for the Environment, the Ministry of Business, Innovation, and Employment, and the consultancy Envisory (previously Hale & Twomey) – the three organisations that developed the original DEFs.

While Refining NZ was discussing the potential closure of the Marsden Point Oil Refinery, the Ministry for the Environment sought advice. The advice concluded that, should Refinery NZ proceed with the closure, the DEFs should be adjusted to solely reflect imported fuel quality. Updating liquid fossil fuel DEFs this year is therefore both necessary (to maintain the accuracy of reported emissions) and timely (to reflect the most up-to-date data available).

There are also several customs item and excise item numbers listed in clause 4 of the LFF regulations that need to be updated. This will not affect how the regulations function, or the values of the DEFs – it will simply ensure that the data on which the DEFs are based is correctly referenced.

Options

Option 1: Status quo

Under this option, DEFs in the regulations will not be updated. The shift to 100 per cent imported fuel will not be reflected, and participants will continue using the current DEFs to calculate emissions for imported fuel.

⁵ Some general changes across the NZ ETS, to reflect adopting new methodologies recommended internationally, have resulted in small changes to liquid fossil fuel DEFs since the last targeted update of the LFF regulations. However, these were not the result of an identified change in fuel quality.

Option 2: Update the LFF Regulations

The DEFs for each category of fuel will be updated using the latest data on imported fuel quality.

Table 6 presents the existing and proposed changes to the DEF values.

Table 6: Existing and proposed DEFs for liquid fossil fuel categories

Category	Emission source	Current DEF (tCO _{2e} /kl)	Proposed DEF (tCO _{2e} /kl)	% change
Petrol	Regular petrol	2.313	2.319	0.26
	Premium petrol	2.369	2.322	-1.98
Diesel	Automotive and marine diesel	2.664	2.665	0.04
Aviation	Aviation spirit	2.198	2.252	2.46
	Jet fuel	2.522	2.519	-0.12
Fuel oil	Light fuel oil	2.928	3.003	2.56
	Heavy fuel oil	3.013	3.119	3.52
Any other fuel		3.299	No change	N/A

The customs item and excise item numbers will also be updated to be correctly referenced.

Analysis

Table 7 outlines an assessment of the options described above. To assist with interpretation of the analysis in the table, see the [Criteria for assessing options](#) section.

Table 7: Options for updates to NZ ETS regulations for liquid fossil fuels

Criteria	Option 1: Status quo	Option 2: Update the LFF Regulations
Alignment	0	+ Aligns with the proper functioning of the NZ ETS.
Accuracy	0	++ Reported emissions and associated NZ ETS costs are more consistent with actual emissions, accounting for significant recent shifts.
Efficiency	0	0 No change for participants in how they report their emissions.
Clarity	0	0 No change for participants in how they report their emissions.
Overall assessment	0	3+

The expected costs and benefits of these options are as follows.

- Historical updates following the same process indicate high evidence certainty that the total monetary cost of Option 2 is low for the Government.
- Historical updates following the same process indicate high evidence certainty that the total monetary cost of Option 2 (other than change in NZ ETS obligation) is low for the relevant participants. Emissions costs may change for individual participants depending on the fuel categories that they have obligations for, but many of the DEF changes are small and include both increases and decreases.

- The recommended DEFs do vary from the current DEFs, which may result in some minor influence on the cost of fuel in New Zealand. However, this could include a combination of increases and decreases across fuel categories and is therefore likely to be negligible overall.
- Any change improving the accuracy of the NZ ETS positively contributes to progress toward New Zealand’s climate targets and budgets. Other than this, there are no expected monetary impacts or benefits that can be quantified for the wider government, the general public, or New Zealand’s overall economy from this proposal.
- Updating the customs item and excise item reference numbers has no impacts for the Government, participants, or any other entities or individuals.

Questions

Questions

6. Do you have any feedback or relevant evidence about the proposed update to DEFs for liquid fossil fuels in the LFF Regulations?
7. Do you support continuing to regularly review and, where needed, update the DEFs for liquid fossil fuels? How might we improve this process?

Proposed regulatory update 4: Improving accuracy for the waste sector

Background

Two sets of regulations set how waste participants calculate their emissions. The DEF for disposing of waste is set in the [Climate Change \(Waste\) Regulations 2010](#) (Waste Regulations) and is periodically updated as New Zealand's waste profile changes. This DEF was last updated in 2022.

Most waste participants also apply for a site-specific UEF for landfill gas capture and destruction and waste composition. [Clauses 18–20](#) of the UEF Regulations contain the requirements for calculating and applying for a UEF. These regulations also refer to the DEF – a UEF can be a maximum of 90 per cent of the current DEF. The DEF is also used as a basis for waste composition to calculate UEFs where actual composition data are not available.

We are proposing three changes that would impact waste participants. Two of these correct how the DEF should be applied for calculating UEFs. **If these changes are approved for regulations, all current waste UEF holders will likely need to reapply for a UEF next year.**

The proposed changes are separate to work that the Ministry for the Environment is continuing with landfill operators to better understand landfill gas capture efficiency. If any proposals are developed following the work with landfill operators, they would be considered through future updates to regulations.

4a – Aligning values in DEF and UEF regulations

Why does this process need to be improved?

Landfill operators that use a UEF for capture and destruction of landfill gas should have a maximum landfill gas collection efficiency of 90 per cent of the DEF. This '90 per cent cap' on waste UEFs was put in place due to uncertainty in the modelling that is used to estimate the efficiency of the capture system.

When the DEFs were updated in the Waste Regulations in 2022, the DEF in the UEF Regulations was not similarly updated, as it should have been. This means some UEF applicants could be calculating a UEF that is more than 90 per cent of the DEF used in the Waste Regulations.

Options

Option 1: Status quo

Under this option, the UEF Regulations will not be updated to reflect the changed DEF in the waste regulations. UEF applicants may calculate an emissions factor that is more than 90 per cent of the DEF used in the Waste Regulations.

Option 2: Update the UEF Regulations

The UEF Regulations will be updated so the same DEF is used in both the UEF Regulations and the Waste Regulations. This would increase the DEF referred to in the UEF regulations from 0.91 to 1.023 tCO₂e/TJ.

This is the Government's preferred option. Under this option, the DEF (as based on the New Zealand national average) would apply to both sets of regulations, ensuring parties are being treated consistently.

Analysis

Table 8 outlines an assessment of the options described above. To assist with interpretation of the analysis in the table, see the [Criteria for assessing options](#) section.

Table 8: Options for updates to the UEF and DEF regulations

Criteria	Option 1: Status quo	Option 2: Update the UEF Regulations
Alignment	0	+ Aligns the UEF Regulations with the DEF derived from New Zealand's Greenhouse Gas Inventory, better supporting the proper functioning of the NZ ETS.
Accuracy	0	+ Reported emissions and associated NZ ETS costs are more consistent with actual emissions.
Efficiency	0	0 No change for participants in how they report their emissions.
Clarity	0	+ Improves the consistency of the regulations.
Overall assessment	0	3+

This proposal would have minor economic impact for UEF applicants, as all current waste UEF holders will likely need to reapply for a UEF next year.

Questions

Question

8. Do you support updating the waste DEF used to calculate UEFs?

4b – Clarifying data used to calculate UEFs for waste participants

Why is this correction to waste UEFs needed?

Waste participants applying for a UEF for landfill gas collection and destruction that do not have historic composition data are required to use the waste composition data for the current DEF, as provided in [Schedule 2](#) of the UEF Regulations. Where site-specific compositional data are available, UEF applicants must use this information for modelling landfill gas capture. These composition data are used to model the efficiency of the landfill gas capture system.

This means UEF applicants without site-specific compositional data are using current national waste composition for waste disposed historically. This is likely to be inaccurate, as waste composition changes over time, reflecting changing behaviours.

Options

Option 1: Status quo

Under this option, UEF applicants will use the current compositional data to model landfill gas collection, regardless of when the waste was disposed.

Option 2: Update the UEF Regulations

The alternative option is to update the UEF Regulations so that applicants use the default (historical) waste composition that applied when the waste was disposed.

The Government prefers this option, which would improve the accuracy of the model used to calculate the landfill gas capture efficiency of landfill systems.

Analysis

Table 9 outlines an assessment of the options described above. To assist with interpretation of the analysis in the table, see the [Criteria for assessing options](#) section.

Table 9: Options to clarify the compositional data used to calculate UEFs

Criteria	Option 1: Status quo	Option 2: Update the UEF Regulations
Alignment	0	+ Aligns the UEF regulations with historical waste composition, better supporting the proper functioning of the NZ ETS.
Accuracy	0	+ Reported emissions and associated NZ ETS costs are more consistent with actual emissions.
Efficiency	0	0 No change for participants in how they report their emissions.
Clarity	0	+ Improves the consistency of the regulations.
Overall assessment	0	3+

This proposal would have minor economic impact for UEF applicants, as all current waste UEF holders will likely need to reapply for a UEF next year.

Questions

Question

9. Do you support using historical waste composition to inform the calculation of UEFs?

4c – Offsite destruction of landfill gas

Why is this correction to waste UEFs needed?

The UEF Regulations currently require that the UEF applicant's destruction system is at the landfill (as outlined in [clause 23C](#)):

A waste participant who wishes to calculate a unique emissions factor that relates to the use of an LFG [landfill gas] collection and destruction system **at a disposal facility**.

This means a UEF applicant would not be able to apply for a UEF if the landfill gas is destroyed elsewhere. This is not currently a problem, as we are not aware of any landfills that are destroying landfill gas offsite. However, we are aware some landfills are considering this option, such as for developing biomethanol from landfill methane, or potentially using biomethane to substitute for natural gas in domestic and commercial uses. This change could incentivise the use of landfill gas for other purposes.

Options

Option 1: Status quo

Under this option, to apply for a UEF, the waste participant must collect and destroy the landfill gas at the landfill.

Option 2: Update the UEF Regulations

This option is to update the regulations so that applicants can destroy the landfill gas offsite, including by a third party.

This is the Government's preferred option. The rationale is to encourage destruction of the landfill gas, regardless of location, as this could incentivise other uses of landfill gas.

Analysis

Table 10 outlines an assessment of the options described above. To assist with interpretation of the analysis in the table, see the [Criteria for assessing options](#) section.

Table 10: Options to clarify the compositional data used to calculate UEFs

Criteria	Option 1: Status quo	Option 2: Update the UEF Regulations
Alignment	0	+ Aligns with the proper functioning of the NZ ETS.
Accuracy	0	+ If landfill gas is being destroyed offsite, reported emissions and associated NZ ETS costs are more consistent with actual emissions.
Efficiency	0	0 No change for participants in how they report their emissions.
Clarity	0	0 No change for participants in how they report their emissions.
Overall assessment	0	2+

This proposal is not expected to have material economic impacts.

Questions

Question

10. Do you support allowing landfill gas to be destroyed offsite, potentially by a third party? Are you currently working with a third party to destroy landfill gas offsite?

Proposed regulatory update 5: Clarifying how the destruction of synthetic greenhouse gases is recognised

Background

The Climate Change (Other Removal Activities) Regulations 2009 (ORA Regulations) currently provide for the export or destruction of synthetic greenhouse gases to receive New Zealand Units (NZUs).

- Gases exported no longer count toward New Zealand's greenhouse gas inventory and international emissions accounting.
- Gases destroyed are removed from use, so will not result in future emissions such as emissions from refrigerants leaking over time.

Regarding destruction of such gases, clause 17 of the ORA Regulations states:

The threshold for the destroying synthetic greenhouse gases activity is that the destruction of the synthetic greenhouse gases results in at least 1 tonne of removals in a year from synthetic greenhouse gases other than sulphur hexafluoride imported before 1 January 2013.

The original policy intention of this provision was to ensure that eligibility for recognition of removal of sulphur hexafluoride (SF₆) is contingent on evidence that the chemical was imported after 1 January 2013. This was to remove the risk of importing and stockpiling of SF₆ before the regulations came into effect, with the intention to then export or destroy it to receive NZUs.

To date, known entities that use the provisions to export or destroy synthetic greenhouse gases have only received NZUs upon proof of export. The gases were then destroyed at a plasma-arc plant in Australia. However, due to increasing cost and the complex logistics of exporting these gases, most refrigerants collected for destruction are currently stored in New Zealand, awaiting a suitable opportunity to export or to destroy domestically.

Investigation and investment into opportunities to destroy these gases within New Zealand are also taking place, working under the expectation that NZUs will be awarded for domestic destruction of synthetic greenhouse gases.

Why change the wording around recognising these removals?

The current text of [clause 17](#) in the ORA Regulations (in particular, the inclusion of a date criterion) can be read in multiple ways that may diverge from the intended interpretation. That is, either:

- the destruction cannot include SF₆ of any kind, and all gases cannot have been imported before 1 January 2013
- the destruction can include any synthetic greenhouse gases, except for SF₆ that was imported before 1 January 2013.

Following the first approach would somewhat arbitrarily prevent the destruction of any SF₆ in New Zealand. It would also be effectively impossible for an entity to claim credits for the

destruction of other synthetic greenhouse gases, as they are unlikely to have documentation that shows the date of import.

Additionally, the date criterion is now more than a decade ago. While the risk of arbitrage is not entirely absent, we are confident it is sufficiently unlikely that redrafting to allow for the more generous approach would not be problematic. This could include either the removal of the date criterion or clarifying that it only applies to SF₆.

Clarifying this regulation would enable and incentivise onshore destruction, with a lower compliance barrier for recognising this removal. Not only would this result in an actual removal of the synthetic greenhouse gas from future emission into the atmosphere, but it also avoids the emissions associated with exporting the gases offshore for destruction.

Options

Option 1: Status quo

Under this option, the ORA Regulations will not be updated. The current provisions under [clause 17](#) will remain in place, and attempts to seek NZUs for onshore destruction of synthetic greenhouse gases will continue to be at risk due to a lack of clarity.

Option 2: Update the ORA Regulations

The ORA Regulations will be clarified, to ensure that SF₆ imported after 2013 and any other synthetic greenhouse gases (with no date criterion) are eligible for NZUs upon destruction, while considering whether any flexibility introduced or barriers removed sufficiently mitigate any remaining risk of arbitrage.

Analysis

Table 11 outlines an assessment of the options described above. To assist with interpretation of the analysis in the table, see the [Criteria for assessing options](#) section.

Table 11: Options for updates to regulations for onshore destruction of synthetic greenhouse gases

Criteria	Option 1: Status quo	Option 2: Update the ORA Regulations
Alignment	0	+ Aligns with the proper functioning of the NZ ETS by ensuring interpretation matches original policy intent and does not prevent genuine removals from occurring.
Accuracy	0	0 Has no impact on the accuracy of actual removals reported, only whether they are successfully awarded NZUs.
Efficiency	0	+ Participants applying for recognition for destruction of synthetic greenhouse gases can avoid the potential need to seek a ruling guaranteeing the desired interpretation of the regulations.
Clarity	0	+ + Ensures that interpretation of the regulations is correct for both the regulator and participants.
Overall assessment	0	4+

This proposal is not expected to have material economic impacts.

Questions

Question

11. Do you have any feedback or relevant evidence about the proposal to clarify the ORA Regulations to allow for the onshore destruction of synthetic greenhouse gases?
-

SECTION B: NZ ETS auctioning and operational regulatory updates and improvements

Proposed regulatory update 6: Clarifying the definition of qualified person

Background

The [Climate Change \(Unit Register\) Regulations 2008](#) (Unit Register Regulations) provide processes, structures and definitions for managing the Register of accounts containing NZUs.

The Unit Register Regulations also define who can open or manage an account. This includes:

- accounts that must exist because the account holder is a participant in the NZ ETS who either has surrender obligations or receives an allocation (either free allocation or units received for removals)
- accounts opened or managed by non-participants.

Why update this definition?

Any person opening an account in the New Zealand Emissions Trading Register (NZ ETS Register) must be a 'qualified person,' as defined in [clause 3](#) of the Unit Register Regulations. The intention of this definition, and the other clauses of the Unit Register Regulations that rely on it, is to prevent unsuitable individuals or entities from opening accounts or acting as primary representatives for these accounts. For example, the definition rules out individuals who are under 18 years of age or are in undischarged bankruptcy.

However, mandatory participants must have a holding account, and such a participant could otherwise be considered unsuitable under the definition. Therefore, the regulations must allow for an exemption in certain cases.

The interactions between this definition and other clauses in the Unit Register Regulations are ambiguous. Depending on how the regulations are read, individuals unsuitable under parts of the definition could open or manage holding accounts using exemptions or loopholes not intended to apply to them.

Clarifying the wording and cross-referencing in two clauses of the Unit Register Regulations could support interpretation and mitigate the risks identified:

- [Clause 3](#) explicitly defines the term 'unit register,' but throughout this clause it is often referred to as 'a register' instead. Though it should be clear to anyone reading the regulations that 'a register' refers to the unit register, the inconsistency in the terms could allow for unintended interpretations.
- [Clause 14](#) sets out that, in addition to authorisation from the relevant account holder, the only other qualification to act as a primary representative for a holding account is to be 'a qualified person.' This is intended to allow mandatory participants to manage holding accounts, even where they might otherwise not meet the definition of qualified person. However, we are aware that an unintended reading could suggest that a person who only meets the definition of qualified person because they are a mandatory participant can become the primary representative for a holding account other than the one that they are specifically required to have.

Options

Option 1: Status quo

Under this option, the Unit Register Regulations will not be updated. The current definition of 'qualified person' under [clause 3](#), as well as any other clauses in the regulations that rely on this definition, will remain the same.

Option 2: Update the Unit Register Regulations

The relevant clauses of the Unit Register Regulations will be clarified to remove the ambiguities and risks identified above, while maintaining the intention and functionality of the unit register.

Analysis

Table 12 outlines an assessment of the options described above. To assist with interpretation of the analysis in the table, see the [Criteria for assessing options](#) section.

Table 12: Options for updates to NZ ETS regulations for the definition of 'qualified person'

Criteria	Option 1: Status quo	Option 2: Update the Unit Register Regulations
Alignment	0	+ Aligns with the proper functioning of the NZ ETS by maintaining the integrity of the unit register.
Accuracy	0	0 Has no impact on the reporting or calculation of, or the obligation on, emissions within the NZ ETS.
Efficiency	0	0 No change for participants in how they report their emissions.
Clarity	0	+ Ensures that interpretation of the regulations is correct for both the regulator and participants.
Overall assessment	0	2+

This proposal is not expected to have material economic impacts.

Questions

Question

12. Do you have any feedback or relevant evidence about the proposed update to the 'qualified person' definition in the Unit Register Regulations?

Proposed regulatory update 7: Improving auctioning collateral methodology

Background

The [Climate Change \(Auctions, Limits, and Price Controls for Units\) Regulations 2020](#) (Auction Regulations) provide processes, structures, and definitions for managing auctions, including units available at auctions.

Why does the methodology for auctioning collateral need to be updated?

Although the current method for calculating auctioning collateral works well, we could clarify the definition of 'maximum bid' when a bidder posts multiple bids at different price points. The current definition can result in participants being required to pay for more collateral than is appropriate. This is because participants only need to pay for the clearing price (which is the lowest-priced successful bid above the CRP). Some stakeholders have suggested a different definition of 'maximum bid,' which might be preferable when some of the bid prices exceed the clearing price.

Options

Option 1: Status quo

Under this option, the methodology for calculating auctioning collateral will not be updated.

As provided by [clause 25](#) of the current Auction Regulations, collateral is calculated using the formula $0.25 \times \text{bid volume} \times \text{bid price}$, totalled across all bids.

Option 2: Change the methodology to a cumulative approach

This approach to calculating collateral is intended to recognise that successful bidders at an auction do not necessarily pay the price they bid. Rather, they purchase units at the price of the lowest-priced successful bid (the clearing price). The value of the bids is adjusted down on the basis that, if the lower-priced bids are successful, the price of the higher-priced bids would be adjusted to that same price. The calculation then uses the clearing price scenario that would involve the bidder paying the most for their units and calculates the collateral as 25 per cent of this value.

Under this option, collateral is calculated by using the formula $0.25 \times \text{cumulative bid volume} \times \text{bid price}$, then taking the maximum amount.

Example of these two options

In the example provided in table 14, the greatest amount a bidder would be liable to pay under either option would be when the clearing price was \$38.00, which would require them to pay \$9,880,000 to purchase 260,000 units at \$38.00 each.

Option 2 would require them to pay \$2,470,000 in collateral ($\$9,880,000 \times 0.25$), whereas the status quo would require them to pay \$2,822,000 in collateral.

Table 13: Example collateral calculations under the two proposed options

A: Bid volume	B: Cumulative bid volume	C: Bid price	A × C: Bid price × bid volume	Collateral under status quo: Sum of 0.25 × A × C for all bids	B × C: Cumulative bid price IF current price successful on all previous bids (maximum price in bold)	Collateral under option 2: 0.25 × B × C, taking the maximum
30,000	30,000	\$50.00	1,500,000	\$375,000	\$1,500,000	\$375,000
20,000	50,000	\$42.20	844,000	\$211,000	\$2,110,000	\$527,500
200,000	250,000	\$39.40	7,880,000	\$1,970,000	\$9,850,000	\$2,462,500
10,000	260,000	\$38.00	380,000	\$95,000	\$9,880,000	\$2,470,000
20,000	280,000	\$34.20	684,000	\$171,000	\$9,576,000	\$2,394,000
Total face value:			11,288,000	\$2,822,000	\$9,880,000	\$2,470,000

Analysis

Table 14 outlines an assessment of the options described above. To assist with interpretation of the analysis in the table, see the [Criteria for assessing options](#) section.

Table 14: Options for updates to NZ ETS regulations for the calculation of auction collateral

Criteria	Option 1: Status quo	Option 2: Change the methodology to a cumulative approach
Alignment	0	+
		More accurately reflects the value of winning bids in the calculation of collateral when multiple bids are entered.
Accuracy	0	0
		Has no impact on the reporting or calculation of, or obligation on, emissions within the NZ ETS.
Efficiency	0	+
		The cost of providing collateral reflects more closely the likely value of the successful bids and increases ease of participation in auctions, as less money needs to be moved.
Clarity	0	0
		Would change the rule of collateral calculation, but this can be communicated clearly to participants and NZX.
Overall assessment	0	+2

This proposal is not expected to have material economic impacts.

Questions

Questions

13. Do you agree that the methodology of calculating auctioning collateral needs to be updated?

14. Are there any options for calculating auctioning collateral that we haven't considered, which you would prefer? Please explain.

Consultation questions and providing feedback

Consultation questions

The questions below are also included under the relevant proposals throughout the document.

Questions

1. Do you have any feedback or relevant evidence about the proposed DEF values for directly updating the SEIP Regulations for geothermal activities?
2. Do you have any feedback or relevant evidence about the proposed UEF methodology additions for directly updating the UEF Regulations for geothermal activities?
3. In your view, for geothermal activities within the NZ ETS, is it better to directly update the existing regulatory structure or take a new approach? Why?
4. Do you have any feedback or relevant evidence about the proposed update to DEFs for natural gas fields in the SEIP Regulations?
5. Do you support continuing to retain and regularly update the DEFs for natural gas fields? How might we improve this process?
6. Do you have any feedback or relevant evidence about the proposed update to DEFs for liquid fossil fuels in the LFF Regulations?
7. Do you support continuing to regularly review and, where needed, update the DEFs for liquid fossil fuels? How might we improve this process?
8. Do you support updating the waste DEF used to calculate UEFs?
9. Do you support using historical waste composition to inform the calculation of UEFs?
10. Do you support allowing landfill gas to be destroyed offsite, potentially by a third party? Are you currently working with a third party to destroy landfill gas offsite?
11. Do you have any feedback or relevant evidence about the proposal to clarify the ORA Regulations to allow for the onshore destruction of synthetic greenhouse gases?
12. Do you have any feedback or relevant evidence about the proposed update to the 'qualified person' definition in the Unit Register Regulations?
13. Do you agree that the methodology of calculating auctioning collateral needs to be updated?
14. Are there any options for calculating auctioning collateral that we haven't considered, which you would prefer? Please explain.

We are also interested in your thoughts on the overall regulatory update process, and we have provided the following general questions to guide your feedback.

Questions

15. Do you have any feedback or suggestions on the process by which the Government routinely updates the regulations that govern the NZ ETS?
16. Are there any improvements, corrections, or clarifications to the NZ ETS regulations, along the lines of those proposed in this document, that you think the Government should add to the update process in future years?

How to have your say

The Government welcomes your feedback on the issues described in this consultation document. The questions throughout the document and summarised here are intended as a useful guide. You do not have to answer them all and any additional comments are welcome.

To ensure that those reading and analysing submissions clearly understand your point of view, you should explain the reasons for your views and give any supporting evidence.

You are welcome to submit on both the proposals presented in this document and those in the consultation on NZ ETS settings in the same submission. As part of the respective analyses, we will consider any feedback that you provide relating to either set of proposals.

Timeframes

This consultation starts on 15 May 2024 and ends on 14 June 2024. Submissions should be made by no later than 5:00 pm on 14 June 2024, to ensure that your views are considered in our analysis.

Submissions made after this date will be received and noted, but we may not be able to reflect the views presented in late submissions in our analysis and decisions.

When the consultation period has ended, we will develop recommendations on changes to regulations.

How to make a submission

There are two ways you can make a submission:

- Via [Citizen Space](#), our consultation hub. You can also provide feedback on NZ ETS settings proposals at the same time if this is of interest to you.
- Write your own submission.

If you want to provide your own written submission, you can include this as an uploaded file in Citizen Space. We prefer not to receive email or post submissions, as this makes analysis more difficult. However, if you need to, please send written submissions to NZ ETS Regulatory Updates, Ministry for the Environment, PO Box 10362, Wellington 6143 and include:

- the title of the consultation
- your name or organisation
- your postal address
- your telephone number
- your email address.

If you are emailing your submission, send it to etsconsultation@mfe.govt.nz as a:

- PDF
- Microsoft Word document (2003 or later version).

Submissions close at 5:00 pm on 14 June 2024.

For more information

Please direct any queries to:

Email: etsconsultation@mfe.govt.nz

Postal: NZ ETS regulatory updates, Ministry for the Environment,
PO Box 10362, Wellington 6143

Publishing and releasing submissions

All or part of any written comments (including names of submitters), may be published on the Ministry for the Environment's website, environment.govt.nz. Unless you clearly specify otherwise in your submission, the Ministry will consider that you have consented to website posting of both your submission and your name.

Contents of submissions may be released to the public under the Official Information Act 1982 following requests to the Ministry for the Environment (including via email). Please advise if you have any objection to the release of any information contained in a submission and, in particular, which part(s) you consider should be withheld, together with the reason(s) for withholding the information. We will take into account all such objections when responding to requests for copies of, and information on, submissions to this document under the Official Information Act.

The Privacy Act 2020 applies certain principles about the collection, use and disclosure of information about individuals by various agencies, including the Ministry for the Environment. It governs access by individuals to information about themselves held by agencies. Any personal information you supply to the Ministry in the course of making a submission will be used by the Ministry only in relation to the matters covered by this document. Please clearly indicate in your submission if you do not wish your name to be included in any summary of submissions that the Ministry may publish.

If you have any questions or want more information about the submission process, please email etsconsultation@mfe.govt.nz.

List of abbreviations used in this document

Term or abbreviation	Definition
Legislation and regulations	
The Act	Climate Change Response Act 2002
Auction Regulations	Climate Change (Auctions, Limits, and Price Controls for Units) Regulations 2020
LFF Regulations	Climate Change (Liquid Fossil Fuels) Regulations 2008
ORA Regulations	Climate Change (Other Removal Activities) Regulations 2009
SEIP Regulations	Climate Change (Stationary Energy and Industrial Processes) Regulations 2009
UEF Regulations	Climate Change (Unique Emissions Factors) Regulations 2009
Unit Register Regulations	Climate Change (Unit Register) Regulations 2008
Waste Regulations	Climate Change (Waste) Regulations 2010
Government entities and policies	
EPA	Environmental Protection Authority
NZ ETS	New Zealand Emissions Trading Scheme
NZ ETS settings	Annual process for unit limits and price control settings
SGG Levy	Synthetic Greenhouse Gas Levy
The Register	New Zealand Emissions Trading Register
Technical terminology	
CRP	Confidential reserve price
DEF	Default emissions factor
NCG	Non-condensable gas
NZU	New Zealand Unit (representing 1 tCO ₂ e)
SF ₆	Sulphur hexafluoride
tCO ₂ e	Unit of measurement: tonnes of carbon dioxide equivalent
UEF	Unique emissions factor