



Ministry for the  
**Environment**  
Manatū Mō Te Taiao

# PROACTIVE RELEASE COVERSHEET: NZ ETS technical regulation updates 2024

<b>Minister</b>	Hon Simon Watts	<b>Portfolio</b>	Climate Change
<b>Name of package</b>	NZ ETS technical regulation updates 2024	<b>Date to be published</b>	Recommend 20 August 2024, if approved by the Minister

List of documents that have been proactively released		
Date	Title	Author
On approval by Minister	1. Briefing: <i>Approval to issue drafting instructions on NZ ETS annual regulatory updates 2024</i>	Ministry for the Environment
	2. Briefing: <i>NZ ETS regulatory updates 2024: Further updates on delegated items and waste sector impacts</i>	Ministry for the Environment
	3. Cabinet paper: <i>New Zealand Emissions Trading Scheme Technical Updates 2024</i>	Office of the Minister of Climate Change
	4. Cabinet minute: CBC-24-MIN-0084 <i>New Zealand Emissions Trading Scheme Technical Updates 2024</i>	Cabinet Office
Information redacted	YES / NO	

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Office of the Minister of Climate Change

CBC – Cabinet Business Committee

## **New Zealand Emissions Trading Scheme Technical Updates 2024**

### **Proposal**

- 1 I seek Cabinet approval to update emissions factors and methodologies for the geothermal and liquid fossil fuel sectors in the New Zealand Emissions Trading Scheme (NZ ETS).

### **Relation to government priorities**

- 2 The proposals in this paper support the coalition agreements between the National Party and our coalition partners to restore confidence and certainty in the NZ ETS.

### **Executive Summary**

- 3 The NZ ETS is our primary tool to reduce emissions, and “credible markets” is one of the five pillars of the Coalition Government’s climate strategy.
- 4 I am proposing technical updates to three sets of regulations:
  - 4.1 Geothermal default emissions factors (DEF) in the Climate Change (Stationary Energy and Industrial Processes) Regulations 2009 (SEIP regulations);
  - 4.2 Geothermal unique emissions factor (UEF) methodologies in the Climate Change (Unique Emissions Factors) Regulations 2009 (UEF regulations);
  - 4.3 Liquid fossil fuel (LFF) DEFs in the Climate Change (Liquid Fossil Fuels) Regulations 2008 (LFF regulations).
- 5 These annual updates are routine but important to maintain the efficiency and accuracy of the NZ ETS. Updating the emissions factors and methodologies ensures that the NZ ETS is accurate for participants in the geothermal and liquid fossil fuel sectors and reflects their actual emissions.
- 6 I am bringing these proposals to Cabinet because they fall outside the scope of previous Cabinet delegations to me to make minor and technical updates to ETS regulations.
- 7 Sector participants were directly engaged on these updates, in addition to public consultation, and are supportive of these updates being made.

## Background & Analysis

- 8 I consulted on a range of technical updates to regulations that govern the NZ ETS, between 15 May and 14 June.<sup>1</sup> The majority were delegated to me to issue drafting instructions, including in future years [ECO-24-MIN-0075 refers].
- 9 Three of the proposals, affecting the geothermal and LFF sectors, were not delegated and are presented in this paper for Cabinet's final decisions.

### *Default emissions factors and unique emissions factor methodologies for geothermal activities*

- 10 Geothermal DEFs and UEFs are used in calculating participants' emissions returns. The majority of participants use a UEF, despite this being more expensive and complex. This is because the DEFs lag behind, especially since they have not been updated in the last few years, so the UEFs are more accurate.
- 11 I propose to update the DEFs for geothermal activities listed in the SEIP regulations, based on recent sectoral data. The proposed DEFs are listed in *Table 1* below.

*Table 1: Proposed geothermal default emissions factors*

Plant	Participant	Existing DEF	Proposed DEF	% change
<i>Plants or processes that use geothermal steam to produce electricity or industrial heat</i>				
Kawerau II	Mercury	0.0202	0.0125	-38.12
Kawerau Industrial	Various	0.0202	0.0174	-13.86
Kawerau KA24	Eastland	0.0202	0.0131	-35.15
Miraka Milk	Tuaropaki Trust	New	0.0053	N/A
Mokai I and II	Mercury	0.0053	0.0046	-13.21
Nga Awa Purua	Mercury	0.0181	0.0082	-54.70
Ngāwhā I and II	NGL	0.0930	0.0555	-40.32
Ngāwhā III	NGL	New	0.0655	N/A
Ngā Tamariki	Mercury	New	0.0091	N/A
Ohaaki	Contact	0.0604	0.0320	-47.02
Poihipi Road	Contact	0.0049	0.0051	4.08
Rotokawa I	Mercury	0.0228	0.0128	-43.86
Te Ahi o Maui	Eastland	New	0.0101	N/A
Te Huka	Contact	New	0.0074	N/A
Te Mihi	Contact	New	0.0045	N/A
TOPP1	Eastland	New	0.0107	N/A
Wairakei Station Site	Contact	0.0051	0.0021	-58.82
Any other plant or process		0.0300	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	Nil	Nil	No change
Tauhara Tenon	Contact	0.0009	Nil	-100.00
Any other plant or process		0.0009	0.0009	No change

- 12 I also propose to update the methodologies available to calculate geothermal UEFs in the UEF regulations to better reflect the practice of reinjecting non-condensable gases (NCGs) back into the geothermal reservoir, rather than emitting them to the atmosphere. The new methodologies are set out below.

<sup>1</sup> Alongside the mandatory annual updates to NZ ETS "limits and price control settings for units" (NZ ETS Settings).

13 Mass-balance measurement:

13.1 This method calculates the UEF by considering the total greenhouse gases in the inputs to a plant and the total greenhouse gases in the outputs to reinjection. The difference is taken to be the emissions to the atmosphere. The analysis must be done as total bicarbonate and reported as total CO<sub>2</sub>.

14 Direct gas-flow measurement:

14.1 This method continuously measures the flow rate(s) of the vapour discharge(s) regardless of the steam and brine flows. The units of this UEF will be tonnes of CO<sub>2</sub> equivalent per tonne of non-steam vapour. The vapour discharge flow rates, pressure, and temperature will be recorded.

15 Recognition of 100 per cent reinjection of non-condensable gases (NCGs):

15.1 This method recognises where there is 100% reinjection of NCGs. An inspection by a recognised verifier would result in a zero emissions factor. This will require permanent connection of the NCG offtake to a reinjection pipeline.

15.2 Allowance will be given for small discharges to the atmosphere, such as on start-up, station trips, and other similar occurrences, of 4000t/year.

15.3 A recorded indicator of NCG emissions will be required, such as a NCG flowmeter, a temperature gauge on the gas emission line, or other indicator that positively records when emissions are occurring. A standard flow rate and DEF for each NCG emission would apply without requiring use of a separate UEF for these emissions. The yearly allowance will still apply.

16 In future years, under the standing delegation approved by Cabinet, I intend to keep the DEFs up to date by using a three-year rolling average of UEFs and DEFs.

17 The impacts of these updates are not substantively different from the status quo, and are expected to reduce over time on average as the rolling averages come into use.

*Default emissions factors for liquid fossil fuel activities*

18 Liquid fossil fuel (LFF) DEFs are used in calculating participant's emissions returns. Since the previous substantive update to the LFF DEFs, Refining NZ's Marsden Point Oil Refinery has closed. All fuel consumed in New Zealand is now imported, resulting in the average fuel composition shifting.

19 I propose to update the DEFs for LFF activities listed in the LFF regulations, based on recent data from the Ministry of Business, Innovation, and Employment. The proposed DEFs are listed in *Table 2* below.

*Table 2: Proposed liquid fossil fuel default emissions factors*

Category	Source	Current DEF	Proposed DEF	% change
Petrol	Regular petrol	2.313	2.319	0.26
	Premium petrol	2.369	2.322	-1.98
Diesel	Automotive / 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	3.299	No change

- 20 The impacts of these changes on fuel prices are expected to include a combination of increases and decreases, detailed in the 'Cost-of-living Implications' section below.
- 21 It has also been identified that the excise and tariff item numbers used in the LFF regulations to specify the above fuel types need to be amended to match the latest item numbers. The item numbers currently referenced in the regulations have expired, and new item numbers are now used in the tariff and excise tables.

### Cost-of-living Implications

- 22 The update proposed for geothermal activities does not have cost-of-living impacts that vary notably from the status quo. The changes to DEFs are significant; however, the majority of geothermal participants are using UEFs because the DEFs have been out of date, which align with their current emissions.
- 23 The update proposed for liquid fossil fuel activities will have cost-of-living impacts as they are likely to result in a combination of increases or decreases to fuel prices:
- 23.1 The greatest increase in default emissions factor (DEF) is heavy fuel oil, of about +3.5%. However, as the NZ ETS cost only makes up a proportion of fuel prices, this translates to about +0.7% impact on the price of heavy fuel oil. This is not a consumer-facing fuel and is primarily used as a marine fuel for large vessels;
- 23.2 The light fuel oil and aviation spirit DEFs also increase by approximately +2.5%, while the jet fuel DEF decreases by about -0.12%, and consequent fuel price impacts are proportionately less (under 0.5%), as with heavy fuel oil;
- 23.3 For consumer-facing fuels, changes are much smaller, and include reductions: For diesel, +0.04% to DEF is about +0.003% to fuel price; for regular petrol, +0.26% to DEF is about +0.015% to fuel price; and, for premium petrol, -1.98% to DEF is about -0.107% to fuel price.
- 24 All changes and overall NZ ETS impact of these proposals are well within range of typical energy and fuel price fluctuations.

### Financial Implications

- 25 There are no quantifiable fiscal impacts of the technical regulatory updates proposed.

### Legislative Implications

- 26 I intend the amended regulations to take effect from 01 January 2025, as this is the beginning of a new compliance year for NZ ETS participants. Therefore, the amended regulations need to be notified prior to 30 September 2024, as three months are required before they come into force.
- 27 This aligns with the timeframes for the NZ ETS Settings updates occurring in parallel.

## Impact Analysis

### *Regulatory Impact Statement*

- 28 The Ministry for Regulations was consulted, and agreed that these proposals are exempt from regulatory impact assessment requirements, as they are technical and involve no policy changes, and analysis indicates that impacts are minor.

### *Climate Implications of Policy Assessment*

- 29 The Climate Implications of Policy Assessment (CIPA) team has been consulted and confirms that the CIPA requirements do not apply to this proposal as the impacts are indirect. The CIPA team provided the following statement:

*This proposal is not able to be meaningfully quantified and it is unclear if it would have any impact on emissions. However, it is expected to improve the functioning of the NZ ETS and to lead to improved emissions reductions outcomes over time. Likely emissions impacts were reconsidered following consultation, and confirmed to be minor and unquantifiable.*

## Population Implications

- 30 There are minimal population impacts associated with these proposals that are additional to the cost-of-living implications outlined above.
- 31 For the technical updates relating to geothermal activities, the impact on Māori trusts and incorporations is expected to be minor and/or positive. In particular, the new UEF methods create options at lower cost over time for low-emissions geothermal practices.
- 32 The Waitangi Tribunal is conducting its National Freshwater and Geothermal Resources Inquiry (Wai 2358). Claimants and interested parties have filed evidence that, broadly, the law in respect of geothermal resources is not consistent with the Treaty of Waitangi. The proposals in this paper may not directly impact Māori rights and interests in geothermal resources, but may impact their management, use, and development, so may be in scope of the Tribunal's considerations.

## Human Rights

- 33 The proposals in this paper are consistent with the New Zealand Bill of Rights Act 1990 and the Human Rights Act 1993.

## Use of External Resources

- 34 No external resources were used in the development of this paper or the underlying analysis that occurred this year. The new DEF values for both geothermal and liquid fossil fuel activities, and the new geothermal UEF methodologies, are based on previous advice that was externally resourced in 2022.

## Consultation

- 35 Feedback from public consultation has informed the proposals in this paper. 38 submissions commented on the technical regulatory update proposals, most of which



were broadly supportive of the specific proposals, as well as the general process of regularly updating NZ ETS regulations.

- 36 The Treasury, the Department of Prime Minister and Cabinet, the Ministry of Foreign Affairs and Trade, the Ministry for Primary Industries, the Ministry of Business, Innovation and Employment, the Environmental Protection Authority, the Ministry of Transport, the Ministry of Social Development, Waka Kotahi New Zealand Transport Agency, Te Arawhiti, and Te Puni Kōkiri were consulted on the content in this paper as part of agency consultation on the parallel NZ ETS Settings Cabinet paper.
- 37 Where I received feedback, it has been considered and incorporated as appropriate.

## Communications

- 38 Announcements about the NZ ETS need to be managed carefully to avoid market risks and to ensure that information does not advantage some market participants over others or compromise investments in NZUs or decarbonisation actions.
- 39 Following established protocols, I will announce Cabinet's decisions on this paper via press release, an email sent to NZ ETS stakeholders and NZ ETS participants, and publication on the Ministry for the Environment's website. This is ahead of final decisions on the amendment regulations. However, early release of decisions will ensure all participants have the information at the same time and that announcements can be managed appropriately.

## Proactive Release

- 40 I intend to proactively release this paper and associated Cabinet committee papers and minutes within 30 business days of final decisions being confirmed by Cabinet, subject to redaction as appropriate under the Official Information Act 1982.

## Recommendations

The Minister of Climate Change (the Minister) recommends that the Committee:

1. **note** that the New Zealand Emissions Trading Scheme (NZ ETS) requires regular maintenance via regulatory update to ensure that the scheme remains credible;
2. **note** that consultation on a range of NZ ETS technical regulatory updates and NZ ETS settings ran from 15 May 2024 to 14 June 2024, with a total of 38 submissions received that responded to the technical regulatory update proposals;
3. **agree** to update the Climate Change (Stationary Energy and Industrial Processes) Regulations 2009 (SEIP Regulations) with the values listed in *Table 1*;
4. **agree** to update the Climate Change (Unique Emissions Factors) Regulations 2009 (UEF Regulations) with the methodologies set out under *paragraph 12*;
5. **note** that the Minister intends to update geothermal default emissions factors (DEF) in future, under the standing delegation authorised by Cabinet as part of the approval to consult [ECO-24-MIN-0075 refers];
6. **agree** to update the Climate Change (Liquid Fossil Fuels) Regulations 2008 (LFF Regulations) to the values listed in *Table 2*;

7. **note** that updating liquid fossil fuel DEFs will affect fuel costs, but the changes and overall NZ ETS impact are well within range of typical fuel price fluctuations;
8. **note** that the excise and tariff reference numbers in the LFF Regulations also require replacing with the latest reference numbers;
9. **authorise** the Minister to issue drafting instructions to the Parliamentary Counsel Office to amend the SEIP, UEF, and LFF regulations to give effect to *recs 5–10*;
10. **authorise** the Minister to further clarify and develop policy matters relating to the amendments recommended above, in a manner consistent with Cabinet decisions.

Authorised for lodgement

Hon Simon Watts

Minister of Climate Change