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INTERPRETATION STATEMENT | PUTANGA WHAKAMĀORI

Income tax and GST – industries other than forestry registered in the Emissions Trading Scheme

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IS XX/XX

This interpretation statement applies to industries registered in the Emissions Trading Scheme, other than forestry which is taxed differently. The statement sets out the conceptual framework for the income tax treatment of emission liabilities and emissions units (NZUs) in these sectors. It then explains how to calculate deductions for emission liabilities and it discusses the treatment of NZUs as income. Finally, there is a brief discussion of the GST treatment of NZUs.

For a discussion on forestry activities registered in the ETS see: PUB00452: **Income Tax and GST – forestry activities registered in the Emissions Trading Scheme**.

Legislative references are to the Income Tax Act 2007 unless otherwise stated.

Contents | Ihirangi

Key terms used in this statement ... 3

Introduction | Whakataki ... 5

How the ETS applies to industrial activities ... 5

- Industrial allocation ... 6
- Allocation of free NZUs for removal activities ... 7
- Timeline of key emissions dates ... 8

Conceptual scheme for the taxation of industrial activity in the ETS ... 8

- Overarching scheme ... 9

Worked examples ... 10

Deductions for emissions liabilities ... 12

- Determining the emissions liability ... 12
- Calculating the amount of the emissions liability deduction ... 13

Accounting for NZUs as revenue account property ... 16

Valuation of free NZUs ... 17

- Value of NZUs on disposal ... 17
  - Disposal of NZUs by way of sale ... 17
  - Disposal of NZUs by surrender ... 17
- Value of free NZUs on initial allocation ... 18
- Value of free NZUs at balance date ... 18
  - No unit shortfall in prior income year ... 18
  - NZU shortfall in prior income year ... 23
  - Excess NZUs ... 32

Fishing quota emissions units ... 34

GST treatment of NZUs ... 35

Appendix: Industries in the Emissions Trading Scheme and eligible removal activities ... 37

References | Tohutoro ... 43

About this document | Mō tēnei tuhinga ... 43

Key terms used in this statement

1. The following terms are used in this statement when considering how the Emissions Trading Scheme (ETS) applies to industrial activities.

Term	Meaning in this statement
allocation	An allocation of NZUs given to a business that has eligible industrial activities that are considered EITE or that is undertaking removal activities.
Climate Change Response Act 2002 (CCRA)	The Act that provides a framework by which New Zealand is developing and implementing climate change policies to enable New Zealand to meet its international obligations under the United Nations Framework Convention on Climate Change, the Kyoto Protocol and the Paris Agreement; and provides for the implementation, operation and administration of a greenhouse gas emissions trading scheme in New Zealand that supports and encourages global efforts to reduce the emission of greenhouse gases.
eligible emitter	A business that is making greenhouse gas emissions and that is eligible for industrial allocation because they are EITE.
emission intensive and trade exposed (EITE)	Industries that require a lot of power to support their production and that cannot pass on to customers the increased costs of the ETS they incur due to competition from mainly offshore suppliers that may have different or weaker ETS equivalents.
emissions	The release of greenhouse gases and/or their precursors into the atmosphere over a specified area and period.
emissions liability	The obligation on emitters to transfer NZUs to the surrender account to match their annual emissions.
Emissions Trading Scheme (ETS)	The greenhouse gas emissions trading scheme established under the CCRA.
entitlement	NZUs that a voluntary participant in the ETS may earn for removal activities under sch 4 of the CCRA provided they submit an emissions return.

Term	Meaning in this statement
Environmental Protection Authority (EPA)	The authority established under the Environmental Protection Authority Act 2011 that runs the ETS.
greenhouse gas	Carbon dioxide, methane, nitrous oxide, any hydrofluorocarbon, any perfluorocarbon, and sulphur hexafluoride.
industrial allocation	The provision of free NZUs to emitting industries considered to be EITE.
industries/industrial activity	Industries registered in the ETS other than forestry and including industries that have emissions that are required to be registered; industries without emissions that are affected by ETS costs; and industries carrying out greenhouse gas removal activities that can choose to register. Forestry activities in the ETS have a different tax regime and are covered in PUB00452: **Income Tax and GST – forestry activities registered in the Emissions Trading Scheme.**
NZU	A unit as defined in s 4(1) of the CCRA approved as a New Zealand unit by the Registrar. The NZU is the domestic unit created for the ETS. One NZU corresponds to one metric tonne of carbon dioxide–equivalent emissions.
participant	A person who is required to or chooses to register in the ETS.
provisional allocation	An initial entitlement to NZUs for eligible industrial activities under s 81 of the CCRA calculated by reference to production in the preceding emissions year
removals	A removal activity listed in part 2 of sch 4 of the CCRA and involving carbon dioxide–equivalent greenhouse gases that are either removed from the atmosphere or not released into the atmosphere, or a reduction from reported emissions.
surrender	The transfer of NZUs to the Crown surrender account to meet an emissions obligation.
synthetic greenhouse gas (SGG)	A hydrofluorocarbon, perfluorocarbon or sulphur hexafluoride.

Introduction | Whakataki

2. Emissions trading is a tool to encourage and enable the reduction of greenhouse gas emissions that contribute to climate change. The ETS is a market the Government manages with the objective of getting long-lived gases linked to climate change to net zero by 2050. The ETS covers about half of all emissions in New Zealand, including those from fossil fuels, industrial processes and waste. Participation in the ETS can either be mandatory or voluntary depending on the type of activity being carried out.

3. Participants in the ETS that generate greenhouse gases need to surrender one NZU for each whole tonne of carbon emissions from their relevant activities.[1] The number of NZUs available to the market reduces over time, which is expected to cause prices to rise, incentivising participants to find ways to reduce their emissions. Participants can decide whether to cut their own emissions or effectively pay others to reduce emissions by buying NZUs.

4. NZUs can be bought at government auctions or from other market participants, including from forestry and others who earn NZUs for carbon removal. NZUs may also be provided to certain industries for free under a method known as industrial allocation and to businesses that remove or destroy greenhouse gases.

5. This statement considers the income tax and GST issues that arise for participants in the ETS other than those in the forestry sector. Income tax and GST issues for forestry participants in the ETS are considered in **PUB00452: Income Tax and GST – forestry activities registered in the Emissions Trading Scheme**.

6. For general information on the ETS, see:

   - Environment Protection Agency, Emissions Trading Scheme
   - Ministry for the Environment, New Zealand Emissions Trading Scheme
   - C Leining, *A Guide to the New Zealand Emissions Trading Scheme: 2022 update*.

How the ETS applies to industrial activities

7. This statement focuses on participants that generate greenhouse gas emissions and incur a liability to surrender NZUs to match their annual emissions. It also covers the tax treatment of free NZUs issued to participants as a form of subsidy from the Government or because their activities reduce emissions.

8. Recipients of free NZUs may or may not have emissions liabilities. Industries with emissions liabilities that are regarded as both emission intensive and trade exposed

[1] Section 63 of the Climate Change Response Act 2002 (CCRA).

(EITE), are allocated free NZUs annually as a subsidy. The free NZUs are allocated based on production levels to incentivise the EITE businesses not to relocate offshore. Free NZUs can also be allocated to businesses that reduce or destroy gases that adversely affect the ozone layer, that may have no surrender obligations.

9. Some parties are obliged to report their annual emissions but are not required to meet emissions liabilities, such as parts of the agriculture sector. Other industries such as liquid fuel importers have both mandatory reporting and liabilities to satisfy under the ETS. Parties who are not obliged to report or surrender NZUs may elect to be in the ETS and then earn free NZUs if their activities reduce emissions or global warming.

10. Given this diversity, the non-forestry industries in the ETS and the removal activities that are eligible to receive NZUs are set out in the Appendix.

11. Before considering the tax issues, the statement considers how industrial allocation operates to provide free NZUs to EITE industries.

Industrial allocation

12. Industrial allocation is the provision of free NZUs to industries considered EITE. Industrial allocation reduces the cost impact of the New Zealand ETS for EITE industry with the purpose of reducing competitive disadvantages with offshore businesses subject to weaker climate policy. International differences in climate policy could otherwise drive the production of EITE businesses and the associated emissions overseas, increasing global emissions and undermining New Zealand's commitment to reduce these.

13. Businesses undertaking 26 different industrial activities are eligible for industrial allocation. They include aluminium smelting and producing:

- cement
- burnt lime (calcium oxide)
- steel
- cut roses
- methanol
- newsprint and tissue paper
- protein meal
- reconstituted wood panels, and
- cucumbers.

14. Industrial allocation is based on the annual level of production, the emissions intensity for the particular activity determined by fixed allocative baselines, and the level of

assistance determined from time to time. This reflects the extent to which emissions costs are met by industrial allocation as determined by an eligibility test based on emissions per million dollars of revenue.

15. Emitters must file an ETS return for the annual emissions year (starting 1 January and ending 31 December) by 31 March the following year with their production for that prior emissions year. At any time from 1 January to 30 April, eligible emitters can apply for an industrial allocation based on their prior year's production. The industrial allocation is provisionally allocated in May. Eligible emitters' final allocation is determined under s 83 of the Climate Change Response Act 2002 (CCRA) based on their actual production figures for the emissions year ended 31 December. The provisional allocation is then deducted from the final allocation to determine their annual allocation adjustment (that is, the shortfall or excess number of free NZUs for the relevant emissions year).

16. If the final allocation of free NZUs exceeds the provisional allocation, additional free NZUs are provided in May the following year. If the final allocation is less than the provisional allocation, the excess free NZUs can either be offset against the provisional allocation made for the next emissions year in May that year, or be returned to the Crown, again by May.

17. As all these activities take place contemporaneously in May, the net free NZUs (after all adjustments) are credited to eligible emitters at one time.

18. An eligible emitter who is applying for an industrial allocation for the first time does not receive a provisional allocation in their first emissions year as they have not filed an emissions return with their production figures for the prior emissions year. They just receive the final allocation after filing their production figures for their first emissions year and thereafter adopt the process set out above.

19. Detail about industries in the ETS and their obligations, which can be mandatory or elective, depending on their emissions and activity, is in the Appendix.

Allocation of free NZUs for removal activities

20. Removal businesses that elect into the ETS receive a final allocation of free NZUs in May after filing an annual (or quarterly) return setting out the greenhouse gases they have removed for the emissions year. These businesses are entitled to receive one NZU for each whole tonne of removals they make.

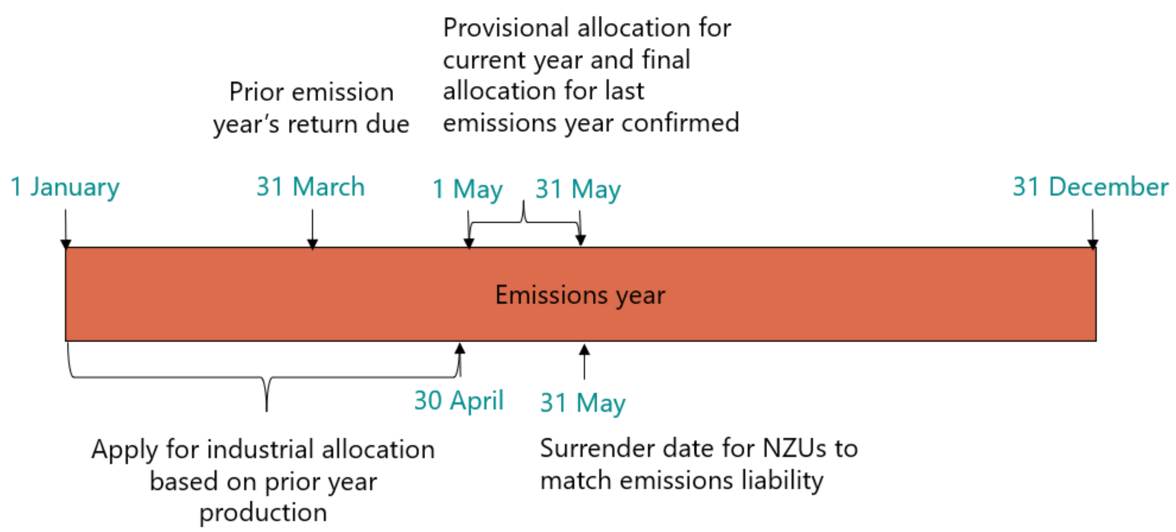
21. For details of removal activities eligible to receive free NZUs, see the Appendix.

Timeline of key emissions dates

22. The following are key dates in an emissions year as shown in Figure | Hoahoa 1:

- 1 January – 31 December – Emissions year
- 31 March – prior emissions year's return due
- 1 January – 30 April – apply for industrial allocation based on prior year production
- 1 May – 31 May – provisional allocation for current emissions year and allocation adjustment based on final allocation for last emissions year
- 31 May – last date to surrender NZUs to match emissions liability

Figure | Hoahoa 1: Diagram of the key dates in an emissions year



Conceptual scheme for the taxation of industrial activity in the ETS

23. The conceptual scheme for taxing industrial participants in the ETS needs to be understood before discussing the legislation in detail. This summary of the ETS provides a framework against which the more detailed analysis can be viewed. The summary covers:

- the overarching scheme (from [24]);
- calculating deductions for emissions liabilities (from [31]);
- accounting for NZUs as revenue account property (from [43]); and
- shortfalls and excess free NZUs (from [74]).

Overarching scheme

24. The conceptual scheme for taxing these participants in the ETS is relatively straightforward. Businesses are allowed a deduction for the emissions liabilities they incur. The emissions liabilities are determined by the number of NZUs required to be surrendered based on production amounts. This is done on an accrual basis, using ordinary accounting principles and general tax provisions.

25. NZUs are treated as revenue account property and rules apply similar to those for trading stock. This means there are valuation provisions that apply when NZUs are acquired and again at balance date, with opening values being a deduction and closing values treated as income. Any NZUs acquired in the open market retain their initial cost price. Disposals of NZUs give rise to assessable income and a disposal not only includes NZUs sold but also those surrendered.

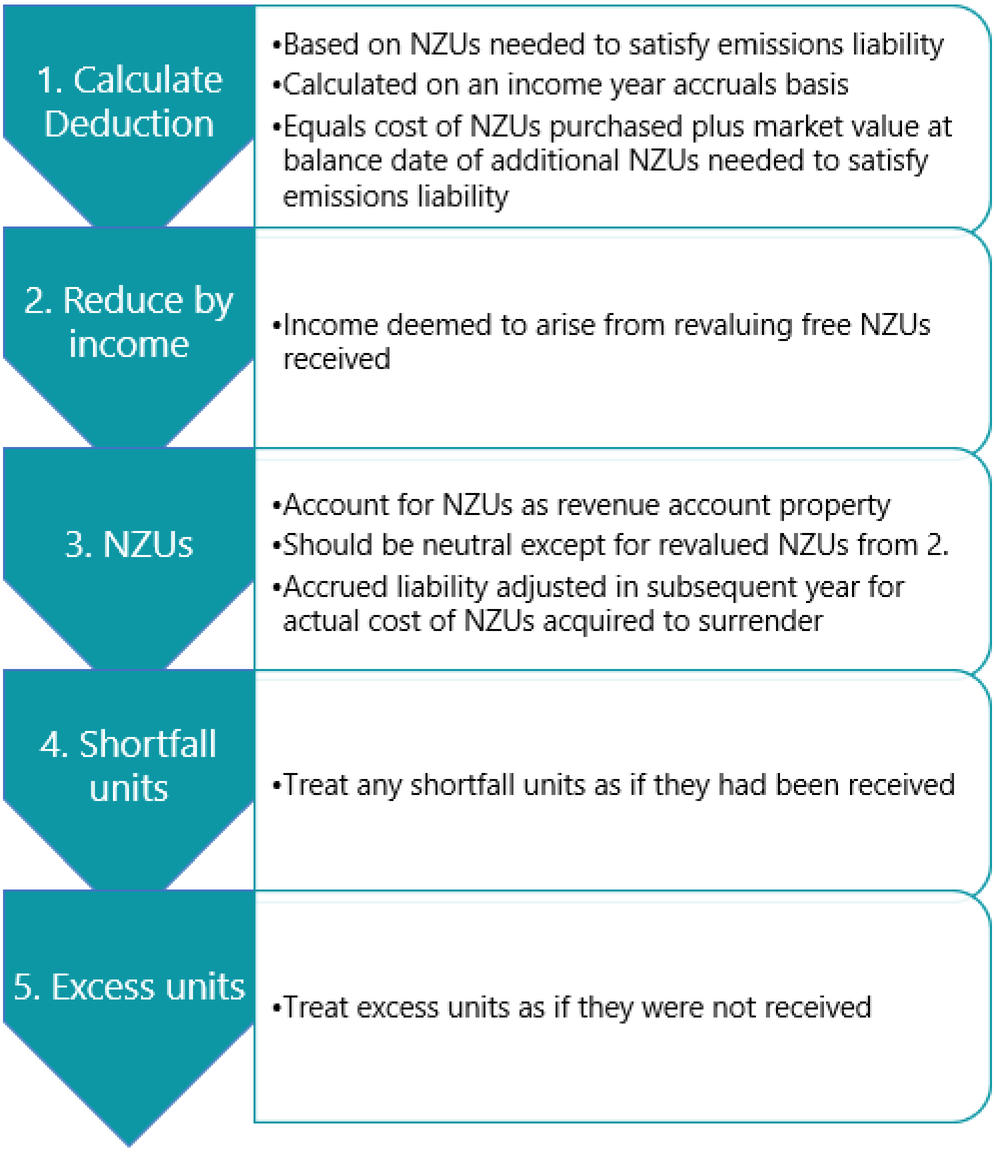
26. However, it gets complicated when a business receives free NZUs. Instead of reducing the deduction for the emissions liability on the basis that the business did not "incur" that liability (because it received free NZUs), the value prescribed for the free NZUs produces income that offsets the excess deduction.

27. Further complications arise where there is a shortfall or excess in the number of free NZUs provided. This typically arises because of the process of a provisional allocation of free NZUs followed a year later by a final allocation. These shortfalls or excesses need to be included or excluded to determine the correct position on an accrual basis.

28. Complexity also arises when the income year balance date of a business does not align with the calendar year that applies for an emissions year. This frequently demands the inclusion of the emissions liabilities and the allocation of NZUs relating to the parts of two different emissions years that fall into the business's income year.

29. The overarching scheme is summarised in Figure | Hoahoa 2.

Figure | Hoahoa 2: Overarching scheme for taxing industrial allocation in the ETS



Worked examples

30. This statement proceeds step-by-step through the issues using an ongoing worked example. Example | Tauira 1 sets out the relevant background facts for the worked example and these facts apply on through to Example | Tauira 6.

Example | Tauira 1 – Hexxus Ltd's background facts

Hexxus Ltd is an EITE business and is required to participate in the ETS.

Hexxus Ltd's relevant dates are as follows:

- **1 January 2023:** start of 2023 emissions year and first date for filing the 2022 emissions return
- **31 March 2023:** end of the 2023 income year and last date for filing the emissions return for the 2022 emissions year
- **31 May 2023:** date by which NZUs must be surrendered **for the 2022 emissions year**
- **31 December 2023:** end of 2023 emissions year

Hexxus Ltd is liable to surrender NZUs to satisfy its emissions liabilities and because of its EITE status it receives free NZUs.

This worked example makes various assumptions, to better illustrate how ETS taxation works conceptually, that may not reflect the reality of most emitting businesses:

- Hexxus Ltd's emissions years before and including 2022 have no shortfall or excess of NZUs.
- NZU allocation, surrender and prior year adjustments are all done at the same time in May each year.
- All emissions are based on production which is consistent and known for each quarter, so the emissions liability is known with certainty at the end of each quarter.
- The spot price for NZUs at close of business on 31 March 2023 is $67.50

Hexxus Ltd is focused on reducing its emissions over time and its allocative baseline for industrial allocation has been reducing over this period as it changed to renewable energy sources. This meant its provisional allocation of free NZUs was reducing each year and not just reflecting the prior year's productions levels. Its emissions liabilities for each of the 2022-2024 emissions years are as follows:

Emissions year (calendar year)	Emissions liability in NZUs	Prov allocation of NZUs	Final allocation of NZUs
2022	520	300	300*
2023	480	280	260
2024	400	200	

* This is the final allocation under the example as stated. Note that later there is a variation of the example where a shortfall exists, and the final allocation increases to 320 NZUs.

Hexxus Ltd received 300 free NZUs for the 2022 emissions year and is required to purchase the balance needed to satisfy its emissions liability.

Hexxus Ltd bought 220 NZUs in February 2023 for $67 per NZU.[2]

Deductions for emissions liabilities

31. Participants in the ETS that have emissions are required to surrender one NZU for each whole tonne of carbon emissions from their relevant activities. Emitters (other than foresters) can claim a deduction for these emission liabilities.

32. There are no specific deduction provisions for emissions liabilities outside the forestry sector. Deductions for emissions liabilities of all other emitters are available under ordinary principles, using the general permission, s DA 1. The approach to deductibility of emissions liabilities follows the financial reporting accrual method by permitting a deduction for the actual or expected liabilities for the emissions years to the extent those liabilities fall into the relevant income year. Where a deduction is claimed based on an expected liability, this should be reversed and replaced by the actual liability in the subsequent year.

Determining the emissions liability

33. Surrender of the relevant number of NZUs to meet the emissions liability must occur by 31 May following the end of each emissions year. Therefore, the first step is to determine the number of NZUs required to be surrendered for the income year on an accrual basis.

34. For an emitter with an income year balance date of 31 March for example, they can deduct:

    - 9 months of the liability to surrender NZUs for the past emissions year ending the preceding 31 December ie from 1 April to 31 December; and
    - 3 months of their expected liability to surrender NZUs for the current emissions year that started on 1 January through to 31 March.

35. The overlap of emissions years and income years is illustrated in Figure | Hoahoa 3.

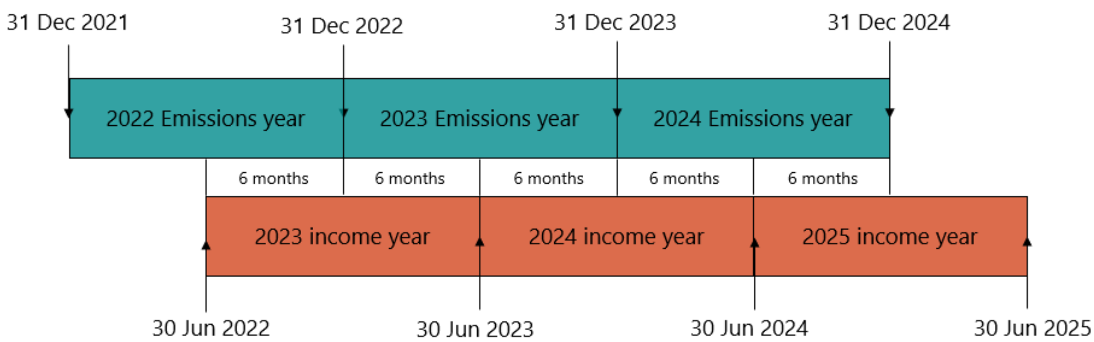
[2] For the purposes of the worked example, NZU values may not reflect actual NZU values at any particular point in time.

Figure | Hoahoa 3: The overlap between emissions years and income years for standard balance dates

36. As at 31 March, the emitter will know the actual NZU surrender obligation for the 9 months of the past emissions year, as they will have filed their emissions return by that date. The emissions return sets out their production output over the period from which their emissions liability and consequent surrender obligation can be determined.

37. For the 3-month period from 1 January, the emitter will have details of their actual production output so can calculate their actual liability for this part period of the current emissions year. Similarly, if an emitter has a June balance date, the overlap periods will all be 6-month periods as shown in Figure | Hoahoa 4.

Figure | Hoahoa 4: The overlap between emissions years and income years for June balance dates



Calculating the amount of the emissions liability deduction

38. Calculating the amount of the emissions liability deduction involves several steps. The first step is to determine the emissions liability on an accrual basis as noted above from [32]. This gives an amount of NZUs required to be surrendered. The second step is to work out how to quantify the liability to surrender NZUs in monetary terms. This involves understanding how the NZU emissions liability will be satisfied. Generally, an

emitter will use its free NZUs first and purchase additional NZUs to make up the balance of the emissions liability.

39. For NZUs purchased during the income year, a deduction is available at cost to the extent there is a liability to surrender that number of NZUs in that income year. Purchased NZUs are required to be held in a separate pool from any free NZUs that are allocated to the emitter. The cost of these NZUs must be determined using at the business's choice: either the first in first out (FIFO) or weighted average cost (WAC) valuation methods for valuation purposes under s ED 1(5).

40. The value of any additional NZUs that will be required to meet the surrender liability for the income year over and above those purchased can be deducted by calculating the required number of additional NZUs at the market value (NZU spot price) at balance date. Any variance between the market value at balance date of those additional NZUs and their actual cost when acquired post balance date, that are used to meet the surrender liability, should be bought to account in the following income year following normal accounting principles.

41. The calculation of the emissions liability ignores:

- the extent to which free NZUs are allocated to the business;
- any expenditure or loss relating to the acquisition of free NZUs (s DB 60); and
- NZUs surrendered during the income year (these surrenders result in income under s CB 36 as a result of being treated as deemed sales at given values – discussed at [54]).

42. Example | Tauira 2 explains how to calculate a deduction for an emissions liability.

Example | Tauira 2 – Hexxus Ltd's emissions liability for the 2023 income year

Hexxus Ltd's emissions liability deduction for 31 March 2023 is based on the liability that it accrues by producing emissions and incurring obligations to surrender NZUs over the two emissions years which fall into the period up to balance date.

Step 1 – determine the number of NZUs required to surrender

Hexxus Ltd needs to calculate the number of NZUs that it must surrender for the emissions it produced for the income year ended 31 March 2023. A calculation is required because Hexxus Ltd's income year (31 March) does not line up with the emissions year (31 December).

Hexxus Ltd's emissions liability deduction is based on:

- 9/12 of the liability for the emissions year ending 31 December 2022; and

- 3/12 of the estimated liability for the next emissions year ending 31 December 2023.

Hexxus Ltd's total emissions liability for the 2022 emissions year was 520 NZUs (from Example | Tauira 1). The emissions liability to 31 December 2022 is 9/12ths of 520, which is 390 NZUs.

Based on its improved emissions figures, Hexxus Ltd calculates that it has a liability of 120 NZUs for the period from 1 January 2023 to 31 March 2023.

Hexxus Ltd has a total emissions liability deduction for the income year ending 31 March 2023 based on 510 NZUs (390 + 120).

So, for the 2022 emissions year (ending 31 December 2022), Hexxus Ltd needs to surrender 520 NZUs in May 2023, but after accrual accounting for the 2023 income year (ending 31 March 2023), for tax purposes Hexxus Ltd has a liability to surrender 510 NZUs for that income year.

Step 2 – calculate the deduction

Having worked out the number of NZUs that Hexxus Ltd is required to surrender for the 2023 income year (510 NZUs), the second step is to determine the value of those NZUs. This is done by using the actual cost of any NZUs that Hexxus Ltd purchased and valuing the balance using the market value at balance date of the additional NZUs required to satisfy the emissions liability. Therefore, the deduction under s DA 1 for the emissions liability in the 2023 income year comprises two amounts:

- the cost of NZUs that Hexxus Ltd purchased to meet the liability; and
- the value of the balance of further NZUs required to meet the liability.

Hexxus Ltd had purchased 220 NZUs at $67 per NZU in February 2023 (totalling $14,740). Therefore, Hexxus Ltd can deduct $14,740 for the cost of purchased NZUs.

Hexxus Ltd can also deduct a further amount for the value of the 290 NZUs it is definitively committed to surrender. This deduction ignores the free NZUs received as its provisional allocation. Hexxus Ltd values the liability to surrender a further 290 NZUs at the market value of $67.50 at 31 March 2023, being $19,575.

Hexxus Ltd's total deduction for emission liabilities for the 2023 income year is:

$14,740 + $19,575 = $34,315

Variation on the facts – NZUs purchased post-balance date

Under this variation on the facts, Hexxus Ltd does not purchase any additional NZUs prior to balance date. Hexxus Ltd decides to defer the purchased of the NZUs until closer to 31 May 2023 when it will need to surrender them.

The effect of not purchasing any NZU's before balance date is that the whole deduction is calculated based on the market value of the number of NZUs required to meet the emissions liability. This means Hexxus Ltd's deduction is $34,425.00, being 510 NZUs at the market value of $67.50 at 31 March 2023.

When the 220 additional NZUs are purchased in the next income year, closer to the surrender date of 31 May, any variance between the market value at the prior year end and the actual cost must be bought to account in that income year.

In May 2023, Hexxus Ltd purchases the 220 NZUs it needs to surrender on 31 May 2023 at $70 each. As a result, Hexxus Ltd calculates there is an additional $550.00 (being 220 x $2.50 – the difference between the $70 cost and the $67.50 market value at balance date) deduction it can claim in the 2024 income year.

Accounting for NZUs as revenue account property

43. The previous analysis and example focused on the deduction available for an emissions liability. However, as noted in the conceptual framework, that deduction is overstated because the business does not **incur** that full liability to surrender that quantity of NZUs because it is eligible to receive free NZUs under the ETS. Instead of reducing the deduction by the free NZUs received, the Act effectively cancels some of the deduction by treating NZUs as revenue account property like trading stock and revaluing them to market value at year end.

44. NZUs are classed as excepted financial arrangements under s EW 5(3B) and "revenue account property" under s YA 1. They are treated in a similar manner to trading stock for tax purposes with the closing value at the end of the year treated as income under s CH 1 and the opening value at the beginning of the year (being the same as the closing value the prior year) deductible under s DB 49. The valuation provisions for this purpose are in subpart ED.

45. Where an NZU has been purchased, its value at year end is its cost under s ED 1(1). Costs are allocated by choosing either the FIFO or WAC method under s ED 1(5).

46. Free NZUs allocated for industrial allocation or removal activities have their own valuation provisions in ss ED 1B and ED 1(7B). These provisions determine values when free NZUs are first allocated to the person and then at tax balance date.

47. The way in which these sections operate is complex (because they need to accommodate the process of provisional allocation of free NZUs in May each year and a subsequent adjustment to that allocation after the final allocation is determined in May the following year). The provisions also allow for the complexity that arises when a business has a tax balance date that does not align with the emissions year ending

on 31 December with a consequent need to accrue parts of two emissions years into one income year.

48. Under s ED 1(5B) free NZUs issued for a zero price must in general be kept in a separate pool in the tax accounts from any other NZUs the business has.

Valuation of free NZUs

49. The tax value of free NZUs must be considered:

- on initial allocation when free NZUs are transferred to the participant;
- at balance date; and
- on disposal either by surrender to meet an emissions liability or by sale.

50. While ordinarily it might make sense to address these chronologically, the rules relating to disposal of the NZUs are straightforward and it is necessary to understand them when accounting for NZUs at balance date. Therefore, the value of free NZUs on disposal is considered first.

Value of NZUs on disposal

51. As noted in [50], a disposal of NZUs occurs both when they are surrendered to satisfy an emissions liability and when they are sold.

Disposal of NZUs by way of sale

52. Under s CB 36(2), disposal of NZUs by way of sale gives rise to assessable income for the vendor at the sale price. A deduction is available under:

- s DB 49(4) for the original cost if the NZUs were acquired in a prior income year and
- the general permission, s DA 1, if they were acquired in the same income year.

53. Where the NZU sold was transferred to a participant as a free NZU and is still valued at nil when sold, no deduction is available as s DB 60(2) denies it.

Disposal of NZUs by surrender

54. NZUs surrendered to meet an emissions liability under the CCRA are treated as a sale to unrelated parties. The surrendered NZUs are treated by s CB 36(3) as having been sold at:

- Market value on the surrender date where the NZU was valued at zero on receipt and remains valued at zero when surrendered.
- The value determined at year end if the free NZU was previously revalued at the end of an income year under s ED 1B.

55. If neither of the above applies and the NZU was purchased, its cost is the deemed disposal value on surrender.

Value of free NZUs on initial allocation

56. Section ED 1B sets the values for free NZUs where the free NZUs have been held continuously by that person from the time of original transfer to them.[3]

57. These free NZUs are valued at zero at the time of original transfer by s ED 1B(2) provided there is no unit shortfall in an earlier income year.

58. However, if the business has a unit shortfall from a prior income year, the free NZUs are allocated the market value applying at the end of each prior shortfall income year (s ED 1B(3) and (4)). Allocation to prior shortfall income years occurs until the shortfall for each income year (oldest first) is satisfied. Usually this will be only the prior income year. Any remaining surplus of free NZUs received over the shortfall amount is allocated a zero value at initial allocation. This is discussed in more detail from [74].

Value of free NZUs at balance date

No unit shortfall in prior income year

59. Subsections (5) to (8) of s ED 1B set out the value to be applied to free NZUs at balance date where there is no unit shortfall in a prior year and where any shortfall from prior years has been cleared. As noted at [57], most free NZUs are going to be valued at zero on receipt.

60. The free NZUs on hand at balance date are valued at market value on balance date up to the level of the free NZU entitlement for the income year. Any free NZUs exceeding that entitlement for the income year remain valued at zero.

61. The free NZU entitlement is determined in the same way as the emissions liability. The emissions liability is determined by accruing the 9-month and 3-month periods from

[3] Section ED 1B applies to free NZUs transferred for industrial allocation, for removal activity and by public authorities for negotiated greenhouse agreements (supplementary agreements and rebates for indirect emissions charges).

the successive emissions years to determine the correct amount for the income year (see Figure | Hoahoa 3). For the free NZU entitlement[4], the same calculation is done.

62. The maximum number of free NZUs revalued to market at balance date is determined by the formula in s ED 1B(6) using the definitions in s ED 1B(7), provided the amount is never less than zero:

Unit entitlement - disposals at zero value

63. The maximum number of free NZUs revalued to market value at balance date is the "unit entitlement" for the income year (ie, for the 9 months and 3 months of the successive emissions years), less any disposals made during the income year when the value of the disposed free NZUs was zero. The formula takes into account the business's final entitlement to free NZUs for the income year, if it is a recipient of an industrial allocation and the allocation entitlement if it is receiving free NZUs for removal activity.

64. The business will know its final unit entitlement for the past emissions year, as the return for this must be filed by 31 March. The business will also know its production or removal figures for the 3 months of the current emissions year, so can calculate its correct entitlement for the part period (even though it would not yet be finalised).

65. Only three types of free NZUs might be valued at zero on disposal.

- Free NZUs valued at zero on receipt and disposed of (including surrendered) before balance date. Provided they are disposed of before balance date, s ED 1B(8) will not apply to revalue them to market value.
- Free NZUs that are valued at zero under s ED 1B(8)(b). For s ED 1B(8)(b) to apply, there needs to be an excess number of free NZUs because of a final allocation that is less than the related provisional allocation. Those excess NZUs are then valued at zero at balance date and carried forward at that value. Excess NZUs are discussed from [88].
- An excess number of free NZUs could also arise where a business with a balance date such as 30 June, has received a provisional allocation in May but only has to account for 50% of this (ie for the period 1 January to 30 June) at balance date as it is not a "unit entitlement" which is defined on an income year basis.

66. It is important to note that the definition of "disposals at zero value" in s ED 1B(7)(b) refers to NZUs that had a **value** of zero at disposal. The **value** at disposal can be different from any **income** deemed to arise on disposal. Section CB 36 treats a

[4] Because an industrial allocation is production-based with a baseline determined by different industry emission profiles and the amount of the entitlement is being gradually reduced and adjusted over time, the level of assistance frequently changes from emissions year to emissions year.

surrender of a NZU as a deemed sale at a given value and treats all disposals as income. It does not, however, alter the NZU's tax **value** at the time of disposal. Therefore, for example, if a free NZU has a **value** of zero at the time of surrender it will be included in the formula in s ED 1B(6) as a disposal at zero value even if it is treated as a sale at market value under s CB 36(7).

67. Any free NZUs that exceed the number determined by the formula are valued at zero under s ED 1B(8)(b).

68. Accounting for the values of the NZUs held by a business is illustrated in Example | Tauira 3.

Example | Tauira 3 – Accounting for the NZUs held in the 2023 income year

This example builds on Example | Tauira 2 where the NZUs purchased were bought in February 2023 and not the variation where they were purchased post-balance date. The focus is on the NZUs that Hexxus Ltd acquired, held and disposed of during the income year. This is similar to accounting for trading stock.

As at 1 April 2022, Hexxus Ltd has no NZUs on hand (assuming its previous years' emissions liabilities have been settled by 31 March 2022 even though the last date to surrender without penalty is 31 May 2022).

Free NZUs

For the 2021 emissions year the final allocation of free NZUs for Hexxus Ltd was confirmed at 300 NZUs, the same as provisionally received in May 2021. As a result, no allocation adjustment was received in May 2022.[5] The provisional allocation for the 2022 emissions year was therefore also 300 NZUs and received in May 2022. Once again, the final allocation matched the provisional allocation for the 2022 emissions year. However, Hexxus Ltd's provisional allocation for the 2023 emissions year received in May 2023 was reduced to 280 NZUs as they commenced their transition to totally renewable energy sources and the baseline was adjusted accordingly. These NZUs have a value of $0 on receipt (s ED 1B(2)).

Free NZUs equal to the unit entitlements for the parts of the 2022 and 2023 emissions years that fall into the income year ended 31 March 2023 must be valued at market value on 31 March 2023 as they are part of the unit entitlement for the income year (s ED 1B(8)(a)). The value of the NZUs on hand is income as closing stock (s CH 1(4)). The same value is then deductible the next year as opening stock (s DB 49(4)).

[5] We start the example with no previous shortfall or excess of NZUs to more clearly show how to treat excess and shortfall NZUs. The reader is encouraged to accept the simple position proposed knowing that the real situation is likely to be more complex.

Purchased NZUs

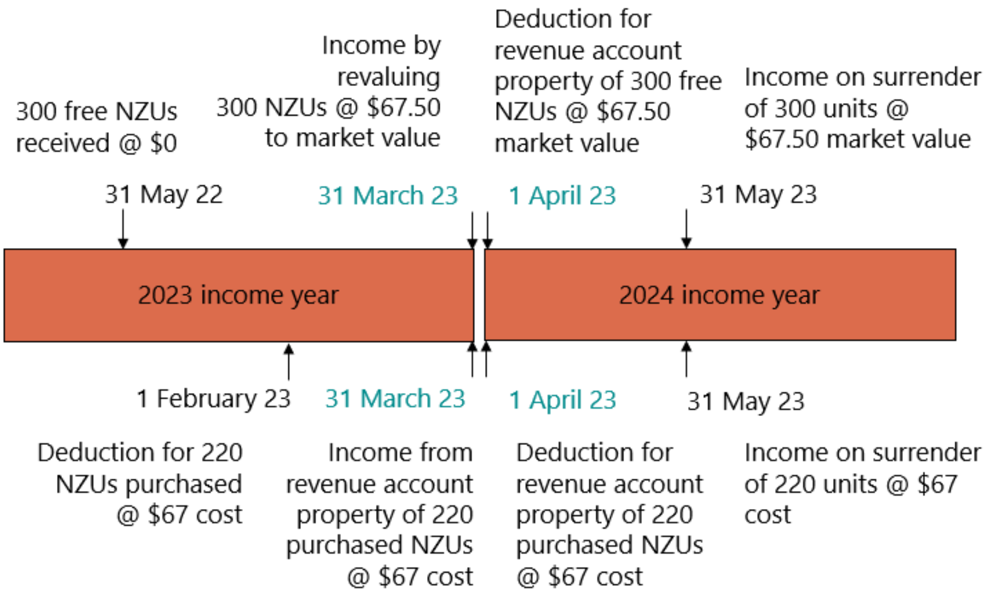
The 220 NZUs purchased in February 2023 are valued at their cost ($67) at balance date (s ED 1(1)). These NZUs remain on hand at the end of the income year because they are not surrendered until 31 May. The value of the NZUs on hand of $14,740 (220 x $67) is income as closing stock (s CH 1(4)). The same amount is then deductible the next year as opening stock (s DB 49(4)).

Net position

Under subpart ED, Hexxus Ltd has income of $14,740 in relation to the NZUs that remain on hand as at 31 March 2023. However, this income is offset by Hexxus Ltd having two deductions relating to the purchase of the 220 NZUs. As explained in Example | Tauira 2, Hexxus Ltd has a deduction of $34,315 for its emissions liability as at 31 March 2023. This deduction is partially based on the cost of the 220 NZUs ($14,740). Additionally, Hexxus Ltd has a deduction for $14,740 being the actual cost of purchasing the 220 NZUs in February 2023.

69. The concepts from Example | Tauira 3 are illustrated in Figure | Hoahoa 5.

Figure | Hoahoa 5: Summary of tax treatment of NZUs at 31 March 2023



70. As can be seen from the entries along the bottom of Figure | Hoahoa 5, accounting for the 220 purchased NZUs effectively cancels out any tax consequences for the NZUs themselves. A deduction for their cost is obtained on purchase, and they are brought in as closing stock at balance date at the same amount. The cost is then deducted at the start of the 2024 income year as revenue account property, and income of the

same amount arises when the NZUs are surrendered in May. This means the purchased NZUs do not give rise to net income or a deduction.

71. It is different for the 300 free NZUs received (shown along the top of Figure | Hoahoa 5). These are received at no cost, but by being revalued to market value at balance date, the market value of these NZUs becomes income at balance date.

72. However, as noted at [43], this income created from the free NZUs is the mechanism used to reduce the deduction claimed for the emissions liability that is not actually incurred as it is satisfied by the free NZUs.

73. A trading account summarising Hexxus Ltd's NZUs might look like Figure | Hoahoa 6. This shows that the transactions involving NZUs largely net out, and Hexxus Ltd is left, in an economic sense, claiming a deduction for its emissions liability that it incurred based on the cost of the NZUs it needed to purchase less the market value of the 10 free NZUs. The 10 NZUs are the difference between those needed to surrender on 31 May 2023 for the 2022 emissions year, and the actual liability of 510 NZUs for the 2023 income year (as explained in Example | Tauira 2). It needs to surrender those NZUs for the 2022 emissions year in May 2023 but they were accounted for in the 2022 income year.

Figure | Hoahoa 6 – Hexxus Ltd's 2023 position

Date	Description	Cost or MV	No of NZUs	Income	Deduction
May 2022	Provisional allocation of free NZUs	0.00	300	0	0
February 2023	Purchase of NZUs on market	67.00	220		$14,740.00
March 2023	Deduction for emissions liability – see Example | Tauira 2			0	$34,315.00
	Revaluation of free NZUs to market value – see Example | Tauira 3 (ss ED 1B(8) and CH 1(4))	67.50	300	$20,250.00	0
	Income under s CH 1(4) for purchased NZUs being revenue account property	67.00	220	$14,740.00	
	Subtotals			**$34,990.00**	**$49,055.00**
	Net position				**($14,065)**

NZU shortfall in prior income year

74. In practice and unlike the 2021 and 2022 emission years in Example | Tauira 3, the reality is that the provisional allocation of NZUs will not match up with the actual entitlement to free NZUs. This means, there will be a shortfall or excess of free NZUs received. Such a shortfall can arise, for example, because the provisional allocation of free NZUs is based on the past year's production and if production in the relevant year is increasing, the final allocation will be a greater amount. Likewise, an excess can arise where production has dropped from the past year (or emissions are reducing) and the final allocation of free NZUs is less than the provisional allocation. The tax treatment where there is an excess of free NZUs is discussed below from [88}.

75. Like the other tax calculations, the shortfall is determined on an income year basis, and not on an emissions year basis. Also, the "unit entitlement" definition in s ED 1B(7)(a) reflects the final allocation entitlement for the emissions year not the provisional allocation. When the participant's balance date is not 31 December, the unit entitlement comprises the pro-rated portions of the final entitlements for two emissions years (as per Figure | Hoahoa 3).

76. The Act has specific rules for treating and valuing free NZUs to ensure the correct amount of income and deductions are returned taking into account these variations between provisional and final allocations. Where the maximum number of free NZUs revalued from zero to market value at balance date under s ED 1B(8)(a), as determined under the formula in s ED 1B(6), is greater than those actually held by the business at balance date, the difference is treated as a unit shortfall under s ED 1B(9).

77. Having a unit shortfall affects (at least) two income years. It affects the year that is a shortfall year and the subsequent income year(s) until the unit shortfall is resolved. This is because for the shortfall year, unit shortfalls are treated as being on hand at balance date and revalued to market value then, even though they will not be received until the next income year when the allocation adjustment is processed in May following the emissions year ending on 31 December.

78. As mentioned, the unit shortfalls are treated as if they were additional NZUs held by the participant under s ED 1B(11) (that is, the same as NZUs on hand) for the purposes of assessing income at year end under s CH 1 and the corresponding deduction at the beginning of the next income year under s DB 49.

79. To ensure the shortfall is not treated as income again when made up in the subsequent income year under the allocation adjustment, s ED 1B(4) assigns the market value of NZUs at the end of the relevant shortfall year (oldest first) to the free NZUs received in that subsequent year until the unit shortfall for that prior year is satisfied. This then reduces the "unit shortfall" and the "unit shortfall value" for that year to zero under s ED 1B(10) and the year ceases to be an "emissions unit shortfall year" (s YA 1).

80. Any further free NZUs the business receives in the subsequent year are then valued in the same manner as NZUs received in an income year that does not follow on from a unit shortfall year under s ED 1B(5) to (8).

Example | Tauira 4 – Emissions unit shortfall year

Hexxus Ltd – variation on the facts

Under this variation to the fact scenario, Hexxus Ltd discovers that its 2023 income year is a "unit shortfall year" as defined in s ED 1B(9).

In March 2023, Hexxus Ltd provides its annual emissions return for 2022, showing it has a liability for 520 NZUs for the emissions year to 31 December 2022 as before.

Based on its emissions return, Hexxus Ltd then submits an annual allocation adjustment showing it is entitled to a further 20 free NZUs (being a final allocation of 320 NZUs) for the 2022 emissions year over the provisional allocation received of 300 NZUs back in May 2022. This means the 2022 emissions year was a shortfall year.

Hexxus Ltd also determines that the provisional allocation for the 2023 emissions year should be 280 NZUs, as its baseline has been reduced with the transition to fully renewable energy.

This means the summary shown in Figure | Hoahoa 6 is no longer correct. The inclusion of the 20 shortfall NZUs is shown in Figure | Hoahoa 7. Additionally, given that Hexxus Ltd is going to receive the 20 shortfall NZUs in May, Hexxus Ltd intends to immediately surrender these NZUs in discharge of its emissions liability. This means that Hexxus Ltd only needed to purchase 200 NZUs in February 2023.

Figure | Hoahoa 7 – 2023 income year including shortfall units

Date	Description	Cost / market value	No of NZUs	Income	Deduction
May 2022	Provisional allocation of free NZUs	0.00	300	0	0
February 2023	Purchase of NZUs on market	67.00	200		$13,400.00
March 2023	Deduction for emissions liability – (200 NZUs @ $67.00 cost plus 310 NZUs @ $67.50 market value on balance date)			0	$34,325.00
	Revaluation of free NZUs to market value– see Example | Tauira 3 (ss ED 1B(8) and CH 1(4))	67.50	300	$20,250.00	0
	Income under s CH 1(4) for purchased NZUs being revenue account property (RAP)	67.00	200	$13,400.00	
	Shortfall NZUs deemed to be on hand at market value on balance date	67.50	20	$1,350.00	
	Subtotals			$35,000.00	$47,725.00
	Net position				**($12,725.00)**

81. The net position of $12,725 represents in economic terms, as discussed at [73], a deduction for the NZUs purchased less the market value of the 10 free NZUs that it is holding at balance date to surrender in May 2023. These were accounted for in the 2022 income year.

82. Having reviewed its 2023 income year to adjust for the unit shortfall, Hexxus Ltd then considers the surrender of these NZUs in May 2023 and the receipt of its next year's initial allocation in Example | Tauira 5.

Example | Tauira 5 – Surrender and receipt of NZUs in May 2023

This example builds on the variation in Example | Tauira 4 that the 2022 income year was a shortfall year and follows the other facts from Example | Tauira 3. This means that this example assumes that Hexxus Ltd knew in February 2023 that it was entitled to a further 20 NZUs and so only purchased 200 NZUs then.

Before considering the surrender of the NZUs, it is useful to review Hexxus Ltd's opening balance of NZUs on 1 April 2023 (for the 2024 income year). Essentially, it is the same 500 NZUs at the same values as the closing balance on 31 March 2023 plus the 20 shortfall NZUs Hexxus Ltd is deemed to hold at 31 March 2023 as shown in Figure | Hoahoa 7.

In May 2023, Hexxus Ltd surrenders its NZUs on hand for the 2022 emissions year and receives its provisional allocation of 280 free NZUs for the 2023 emissions year. Additionally, Hexxus Ltd receives and surrenders the 20 shortfall NZUs from the 2022 emissions year.

After surrendering the NZUs and receiving the next year's entitlement, Hexxus Ltd holds 280 NZUs being the 2023 emissions year's provisional allocation.

Value of surrendered NZUs – free NZUs

For the NZUs surrendered in May 2023, the value on surrender is determined under s CB 36.

The 300 free NZUs are valued under s CB 36(3)(b). This treats the surrender value as being the NZU's value under s ED 1(7B). Under s ED 1(7B)(d), NZUs have the value attributed by s ED 1B. Under s ED 1B(8)(a), the NZUs are valued at their market value at balance date. This means the free NZUs are treated as being surrendered in May 2023 at their market value of $67.50 on 31 March 2023.

Section CB 36(2) confirms that this amount is income for Hexxus Ltd. However, Hexxus Ltd also received a deduction for this amount (as part of the opening value of NZUs at 1 April 2023 being revenue account property under s DB 49(4)). This means the income and deduction cancel each other out. Accordingly, there are no net tax consequences on surrendering the 300 free NZUs for Hexxus Ltd in the 2024 income year.

Value of surrendered NZUs – shortfall NZUs

For the 20 shortfall NZUs, these are received and immediately surrendered to help satisfy Hexxus Ltd's liability. Shortfall units are allocated market value on balance date following the emissions year they relate to until the shortfall is satisfied. They are then disposed of at this value when surrendered under s CB 36(3)(b).

Section CB 36(2) confirms that this amount is income for Hexxus Ltd. However, as Hexxus Ltd was deemed to hold these NZUs at 31 March 2023, Hexxus Ltd receives a deduction for this amount (as part of the opening value of NZUs at 1 April 2023 being revenue account property under s DB 49(4)). This means the income and deduction cancel each other out. Accordingly, there are no net tax consequences on receiving and surrendering the 20 shortfall NZUs for Hexxus Ltd in the 2024 income year.

Value of surrendered NZUs – purchased NZUs

The purchased NZUs that were surrendered were acquired in February 2023 for $67 per NZU.

At 31 March 2023, these NZUs were still valued at $67 under s ED 1(1). Because the purchased NZUs are revenue account property, s CH 1(4) provides that Hexxus Ltd derived income of the value of the NZUs at 31 March 2023. Effectively, this cancels out the deduction for the cost of the purchased NZUs for Hexxus Ltd in the 2023 income year. However, s DB 49(4) then allows Hexxus Ltd a deduction for this amount in the 2024 income year.

On surrender of those purchased NZUs, s CB 36(2) provides that the amount Hexxus Ltd derives on disposal is income, and under s CB 36(3)(a) the amount Hexxus Ltd is treated as deriving is the cost of the purchased NZUs.

83. The results of Example | Tauira 5 are shown in Figure | Hoahoa 8.

Figure | Hoahoa 8 – summary of NZU treatment 2023 and 2024

NZUs	2023 income year		2024 income year		Outcome
Emissions liability		**31 Mar 23** **Deduction** of $34,325			**Deduction** of $34,325
300 free NZUs	**31 May 22** Received for $0	**31 Mar 23** Revalued to market value of $67.50 → **income** $20,250	**1 Apr 23** **Deduction** for revenue account property at book value of $67.50 ($20,250)	**31 May 23** Surrender at book value of $67.50 → **income** $20,250	**Income** of $20,250
200 purchased NZUs	**1 Feb 23** Purchased for $67 each → **deduction** ($13,400)	**31 Mar 23** **Income** from revenue account property of $13,400	**1 Apr 23** **Deduction** for revenue account property of ($13,400)	**31 May 23** Surrender at cost of $67 → **income** $13,400	**No effect**
20 shortfall NZUs	**31 Mar 23** Deemed to hold at balance date	**31 Mar 23** Revalued to market value of $67.50 → **income** $1,350	**1 Apr 23** **Deduction** for revenue account property at book value of $67.50 ($1,350)	**31 May 23** Shortfall NZUs received and surrendered → **income** $1,350	**Income** of $1,350
Net effect				**Deduction of $12,725**	

84. Based on Figure | Hoahoa 8, there are different tax results for the different NZUs.

- The 300 free NZUs give rise to income in the 2023 income year. This reduces the deduction for Hexxus Ltd's emissions liability.
- For the 200 purchased NZUs, the net result for tax purposes is nil. There are corresponding amounts of income and expenditure in each of the 2023 and 2024 income years. However, for Hexxus Ltd, it obtained a deduction for its emissions liability based on the cost of the NZUs.
- For the shortfall NZUs, these give rise to income in the 2023 income year to further reduce Hexxus Ltd's emissions liability (on the basis Hexxus Ltd should have received these free NZUs). However, as revenue account property, they then give rise to a deduction in the 2024 income year that will be carried forward until the shortfall NZUs are received then immediately surrendered in May 2023. This results in income of the same amount under s CB 36(3)(b).

85. The results for the following year (the 2024 income year) are illustrated in Example | Tauira 6.

Example | Tauira 6 – 2024 income year

Hexxus Ltd received the 20 free NZUs that were provided in May 2023 to make up for the shortfall in the 2022 emissions year and then immediately surrendered these. Hexxus Ltd also received the 280 free NZUs that were provisionally allocated in May 2023.

In addition, Hexxus Ltd purchased 200 NZUs for $68.50 each in February 2024.

Hexxus Ltd's emissions liability in NZUs for 2024 income year

As at 31 March 2024, Hexxus Ltd's emissions liability needs to be determined as nine-twelfths (9/12) of the liability for the calendar year to 31 December 2023 and three-twelfths (3/12) of the estimated liability to 31 December 2024. The liability to 31 December 2023 is calculated in a return required to be filed by 31 March 2024, being 480 NZUs. Nine-twelfths of this is 360 NZUs.

To this amount needs to be added three-twelfths of the estimated liability to 31 December 2024. Because it has the production and emission figures for the period 1 January to 31 March 2024 and because of efficiencies it has introduced, Hexxus Ltd estimates its liability for this period as reducing to 400 NZUs.

This means the liability for the first 3 months is 100 NZUs.

Hexxus Ltd has a total liability to 31 March 2024 of 460 NZUs (360 + 100). Having worked out the emissions liability, Hexxus Ltd can now work out its actual deduction.

Hexxus Ltd's deduction for 2024 income year

Hexxus Ltd works out its deduction based on its emissions liability of 460 NZUs. Note that this is Hexxus Ltd's emissions liability for its **2024 income year**, and not the emissions liability of 480 NZUs for the **2023 emissions year** (ending 31 December 2023). As there was expected to be a shortfall of about 200 NZUs (being the 480 estimate less the 280 free NZUs received), Hexxus Ltd purchased 200 NZUs on the market in February 2024 for $13,700 ($68.50 each). This amount is used to determine part of Hexxus Ltd's emissions liability.

The second component is based on the number of NZUs required to be surrendered. From the above calculation, this is 460 NZUs. Of the 460 NZUs, 200 have been valued using the cost of the purchased NZUs. Hexxus Ltd needs a further 260 NZUs to satisfy the surrender liability.

The deduction for these NZUs is based on the market value at 31 March 2024. This is because the market value at balance date is the expected cost of the NZUs required to be surrendered (for which Hexxus Ltd is definitively committed) for the tonnes of carbon emitted.

The market value at 31 March 2024 is $70. The available deduction is 260 NZUs at $70 = $18,200, for a total deduction of $13,700 + $18,200 = $31,900.

This amount is deductible under the general permission for Hexxus Ltd's liability to surrender NZUs.

Accounting for NZUs as revenue account property for 2024 income year

From Figure | Hoahoa 7, the opening balance of NZUs on 1 April 2023 was 520 NZUs. This comprised the 300 free NZUs, 200 purchased NZUs and 20 shortfall NZUs that Hexxus Ltd was deemed to hold at 31 March 2023.

In May 2023, Hexxus Ltd received an allocation adjustment of a further 20 NZUs for the 2022 calendar year (the shortfall NZUs) and the provisional allocation of 280 NZUs for the 2023 emissions year.

As 2024 is an income year that follows a unit shortfall year, s ED 1B(3) is engaged. It requires that the NZUs are valued under subs (4).

Transferred NZUs up to the number of the unit shortfall in 2023 (being the emissions unit shortfall year) are each assigned a value equal to the market value at the end of the emissions unit shortfall year (that is, at 31 March 2023). Any further NZUs transferred are assigned a value of zero. When Hexxus Ltd receives the NZUs in May 2023, 20 of the NZUs are assigned a value of $67.50 each, and the balance of 280 NZUs are each assigned a value of zero.

The 20 NZUs received in May 2023 reduce the unit shortfall and unit shortfall value from the 2023 income year to zero under s ED 1B(10)(a) and (b). The 2023 income year then ceases to be a unit shortfall year under s ED 1B(10) – for the purposes of the 2024 income year onwards. Because the 20 shortfall NZUs are valued at the value they were assigned at 31 March 2023 when they were deemed to be on hand, no income or deduction is triggered on receipt. However, income equal to that value is derived in the 2024 income year when they are surrendered in May 2023 immediately after receipt. As noted at [87], these shortfall NZUs are deemed to be revenue account property and on hand at 31 March 2023. Consequently, a deduction is available under s DB 49 as revenue account property for the 2024 income year to offset the income derived when they were surrendered.

The remainder of the NZUs in the 2024 income year are treated as follows:

- The 280 NZUs received in May 2023 as the initial allocation for the 2023 emissions year are valued at $0 on receipt under s ED 1B(4)(b) but are revalued to market value of $70 at 31 March 2024 under s ED 1B(5) to produce income of $19,600.
- The cost price of the 200 NZUs purchased in February 2024 for $68.50 each is deductible under the general permission, but this is offset by a corresponding amount of income that arises under s CH 1(4) at 31 March 2024.
- Therefore, the opening stock of NZUs on 1 April 2024 is 280 plus 200 = 480 and their value as revenue account property is deductible under s DB 49.

86. A summary of Hexxus Ltd's position in the 2024 income year is set out in Figure | Hoahoa 9.

Figure | Hoahoa 9 – Hexxus Ltd's 2024 position

Date	Description	Cost ($)	No of NZUs	Income	Deduction
April 2023	Provisional NZUs on hand	67.50	300	0	$20,250.00
	Purchased NZUs on hand	67.00	200		$13,400.00
	Shortfall NZUs deemed to be on hand	67.50	20		$1,350.00
May 2023	Surrender of provisional free NZUs	67.50	300	$20,250.00	
	Surrender of purchased NZUs	67.00	200	$13,400.00	
	Allocation adjustment and then surrender of shortfall in free NZUs from 2022 emissions year	67.50	20	$1,350.00	
	Provisional allocation of free NZUs for 2023 emissions year	0	280		
February 2024	Purchase of NZUs on market	68.50	200		$13,700.00
March 2024	Deduction for emissions liability (200 NZUs @ $68.50 cost plus 260 NZUs @ $70 market value on balance date)				$31,900.00
	Revalue of 260 of the 280 provisional NZUs to market value (ss ED 1B(8) and CH 1(4))*	70.00	260	$18,200.00	
	Additional 20 free NZUs not revalued to market value (s ED 1B(8))*		20	0.00	0.00
	Income under s CH 1(4) for purchased NZUs being revenue account property	68.50	200	$13,700.00	
	Subtotals			$66,900.00	$80,600.00
	Net position				**($13,700.00)**

* The splitting of the provisional allocation of 280 NZUs is necessary because there are excess NZUs received in the 2024 income year. This is discussed from [88].

87. The summary in Figure | Hoahoa 9 shows that when all of the NZUs have been accounted for, Hexxus Ltd's net position is effectively determined as the cost of the purchased NZUs it has on hand at 31 March 2024. Note that Hexxus Ltd still has 20 free NZUs on hand that have not been revalued to market value at balance date under s ED 1B(8)(a) – they remain valued at zero under s ED 1B(8)(b) as they are the amount of free NZUs from the provisional allocation that exceeded the final allocation for the 2023 emissions year of 260 free NZUs. These 20 NZUs are excess NZUs and discussed next.

Excess NZUs

88. Figure | Hoahoa 9 demonstrated what happens when the final allocation is less than the provisional allocation. This results in excess NZUs. A business may receive a provisional allocation of free NZUs that exceeds their final allocation due to falling production or a reduction in the industrial allocation. The allocation adjustment the following May will then result in the participant electing to either offset those excess free NZUs against the provisional allocation for the next income year or return the excess NZUs to an account nominated by the EPA. The "unit entitlement" definition does not include these excess NZUs in the income year when the provisional allocation is received and as a result they are allocated a value of zero at balance date under s ED 1B(8)(b).

89. If the participant elects to have the excess NZUs offset against the following year's provisional allocation, they receive that provisional allocation less the excess NZUs from the prior emissions year but are still treated as getting their final allocation entitlement for that subsequent income year under the "unit entitlement" definition.

90. If the participant elects to return the excess NZUs to the EPA this must occur by May following the emissions year end. The resulting transfer will be a disposal under s CB 36, but not a surrender. The free excess NZUs have a value of zero when disposed of and no income is derived from the disposal. The return of excess NZUs is treated as a disposal at zero value under s ED 1B(7)(b).

91. The impact of these provisions is that the participant is taxed based on their final allocation entitlement and the temporary receipt of excess free NZUs is ignored.

92. The above concepts are illustrated in Example | Tauira 7.

Example | Tauira 7 – Excess NZUs for horticulture business

Some horticulture sectors (for example, tomato and cucumber growers using glasshouses) are entitled to free NZUs because of increased ETS input costs like heating, even though they do not have emissions liabilities.

Cumbersome Ltd grows cucumbers hydroponically in a heated glasshouse. Cumbersome Ltd receives free NZUs through industrial allocation. While Cumbersome Ltd does not create emissions itself, it incurs higher costs because of the ETS, through its high electricity usage, and receives free NZUs to help subsidise those higher costs.

Cumbersome Ltd's provisional allocation in May 2023 was 300 NZUs, based on the previous year's production levels. However, in mid-2023, a widespread drought caused Cumbersome Ltd's water allocation to be reduced, and Cumbersome Ltd had to reduce cucumber production as a consequence.

Following the reduced production, Cumbersome Ltd's allocation adjustment (based on the final allocation for the 2023 emissions year made in May 2024) was 50 fewer NZUs, that is, 250 NZUs.

Because Cumbersome Ltd received 300 NZUs in the provisional allocation, it received 50 more free NZUs than it was entitled to.

Cumbersome Ltd had the choice under the CCRA of returning the excess NZUs or having them offset against the provisional allocation of NZUs for the 2024 emissions year.

Cumbersome Ltd does not have to determine an emissions liability or acquire NZUs on the market for surrender, because it is not an emitting business. Instead, Cumbersome Ltd can sell the free NZUs it receives on the market and use the funds to offset its high electricity costs. The amount derived from sale is income.

While 250 of the free NZUs would be valued at market value at balance date on 31 March 2024, the 50 excess free NZUs would not have been included as income at market value at the end of the 2024 income year. This is because under s ED 1B(8)(b) they would have been allocated a value equal to zero at year end. Only the actual entitlement to free NZUs (250) is recorded as income at the year-end market value under s ED 1B(8)(a) with any excess assigned a zero value under s ED 1B(8)(b).

Cumbersome therefore has the option of offsetting the extra NZUs against the next year's provisional allocation or returning them to the EPA and these options are evaluated next.

Option 1 – Cumbersome Ltd sells the excess NZUs

Instead of holding them through to balance date on 31 March 2024 Cumbersome Ltd sells the free NZUs it received in January 2024 to help offset its increased production costs. The total sale price for the 300 free NZUs is income, and there is no deduction for the cost of the free NZUs as they were free and valued at zero on receipt.

Having also sold the 50 excess free NZUs, Cumbersome Ltd has no choice but to offset them against its provisional unit entitlement for the 2024 emissions year (which would have then dropped from 300 to 250 free NZUs as it is based on the prior year's actual amount). That offset (of a further 50 free NZUs) will not reduce the amount of income from 250 free NZUs derived in the 2025 income year if still held at balance date. Cumbersome will still be treated as receiving 250 free NZUs even though it will only get 200. The unit entitlement definition in s ED 1B(7) is based on the final entitlement for the income year under s 83 of the CCRA, which is the calculation made before any adjustment for a prior year's excess offset.

Option 2 – Cumbersome Ltd returns the NZUs

Alternatively, Cumbersome Ltd may decide not to sell the excess free NZUs it receives but to instead return them to the EPA. This means they would not be deducted from the next year's provisional allocation in May 2024. The return of excess NZUs under s 83(6)(b) of the CCRA is not treated as a surrender but is still a disposal for tax purposes under s CB 36(1). The CCRA makes a clear distinction between NZUs that are surrendered for an emissions liability and NZUs that are returned because the provisional allocation exceeds the final allocation.

Returning the NZUs would still be a disposal under s CB 36, but not one resulting in any income under s CB 36(2) because no amount is derived from the disposal. They are required to be transferred to a Crown holding account designated by the EPA by 31 May after the emissions year they relate to under s 83(6)(b)(ii) of the CCRA. The other provisions of s CB 36 do not apply to a return of NZUs that is not a surrender.

Further, the value of those excess NZUs would be zero when allocated to Cumbersome Ltd under s ED 1B(2), as the prior year would not have been an emissions unit shortfall year, and zero again if still held at balance date on 31 March 2025 under s ED 1B(8)(b).

The tax impact is therefore neutral for Cumbersome Ltd whether it decides to offset the excess NZUs or return them to the EPA.

Fishing quota emissions units[6]

93. The proceeds from the disposal of "Fishing quota emissions units" issued in 2009 to fishers who held their quota on capital account are treated as excluded income. However, if the quota was held on revenue account, the NZUs allocated to them are on revenue account too and treated in the same manner as free NZUs issued for industrial allocation.

[6] See also para [133] of the Appendix

94. This outcome arises from s ED 1(7B)(cb) that provides the value of fishing quota emissions units are:

- zero at year end when held on capital account and
- market value at year end when held on revenue account.

95. Those values then flow through to the adjustment provisions for opening and closing stock of NZUs in ss CH 1 and DB 49.

96. This is augmented by ss CB 36(20) and CX 51C(2), which treat a disposal (other than by surrender) of fishing quota emissions units held on capital account as excluded income where the disposal was not by way of surrender for emissions liabilities. In contrast, the disposal of fishing quota units held on revenue account is governed by s CB 36(2) so that if they are sold or surrendered the proceeds will be income.

97. If fishing quota units are surrendered for emissions liabilities they are treated as sold by s CB 36(3) at whatever value they have at that time under s ED 1(7B)(cb).

GST treatment of NZUs

98. NZUs are treated as a supply of services and rather than goods under the Goods and Services Tax Act 1985 (GSTA). Supplies of NZUs are subject to GST, however, most supplies are zero-rated under s 11A(1)(s)–(w) of the GSTA as follows:

- the transfer of NZUs (other than certain transfers by the Crown that are not relevant in the industrial and removal activities context) (s 11A(1)(s));
- the surrender of NZUs under s 63 of the CCRA (that is, for emissions) (s 11A(1)(t)); and
- the supply of services to or by the Crown in consideration for which there is no payment of a price and that is zero rated under paras (s) or (t) above (s 11A(1)(u)); and
- a disposal of similar types of units to NZUs that are issued by reference to the sequestration or avoidance of emission of human-induced GHGs and verified to an internationally recognised standard (s 11A(1)(w)).

99. Therefore, the transfer or surrender of NZUs is generally zero rated for GST purposes. This means the relevant supplies are technically subject to GST but at a rate of 0%.

100. Where unrelated parties agree that NZUs are to be provided at a future date as part of the consideration for a supply of goods and services, the amount agreed for the NZUs is the value for GST purposes. For example, a producer contracting with a distributor or generator for supplies of natural gas at future dates for an amount of money plus sufficient NZUs to cover the emissions liability on that gas. This is provided for in

ss 10(2)(b)(ii) and 10(2B) of the GSTA. For GST purposes the amount agreed can include a nil value for such NZUs.

Appendix: Industries in the Emissions Trading Scheme and eligible removal activities

Introduction

101. This Appendix provides more details about:

- the industries in the Emissions Trading Scheme (ETS) (see from [102]);
- removal activities eligible to receive NZUs (see from [130]); and
- fishing quota emissions units (see [133]).

Industries in the ETS

102. Industries or sectors in the ETS are industrial processes, liquid fossil fuels, stationary energy, waste disposal, horticulture, agriculture and synthetic greenhouse gases (SGGs).

Industrial processes

103. Participants in the industrial processes sector are required to record the amount of product they produce annually and submit this in an emissions return. Each product has an emissions factor that estimates the emissions per tonne for that process. The gross tonnage of product is multiplied by this factor to give a total emissions figure. The business is then required to surrender NZUs corresponding to its reported emissions.

104. These obligations apply to:

- iron and steel;
- aluminium (including carbon dioxide (CO_2) and perfluorocarbon emissions);
- clinker or burnt lime (resulting in calcination of limestone or calcium carbonate);
- glass (manufactured using soda-ash); and
- gold (where CO_2-equivalent emissions per year exceed 5,000 tonnes).

Liquid fossil fuels

105. Suppliers of petrol, diesel, aviation gas, jet kerosene, light fuel oil and heavy fuel oil have an obligation to report and surrender NZUs. There are exemptions for international aviation and marine transport, but domestic airlines use fuel covered by the ETS.

106. Principally the obligation applies when the fuel supplier takes fuel from the refinery (now shut and operating as storage for imported product) or imports it. However, large purchasers of liquid fossil fuels can participate voluntarily (that is, opt in) to the ETS.

107. Liquid fossil fuel suppliers do not receive an industrial allocation as they are not considered trade exposed and can pass on their costs to consumers.

108. Generally, coastal shipping and fishing industries do not directly participate in the ETS, but they can face increased costs associated with the ETS. Even though domestic cargo is carried by international parties undertaking coastal shipping, fuel they buy in New Zealand does not incur ETS costs. In contrast, in the fishing industry all fuel from New Zealand includes ETS costs, but fishing fleets in the New Zealand exclusive economic zone can purchase fuel outside New Zealand that may not include such costs.

109. Participants in the liquid fossil fuels sector are required to monitor fuel flows and calculate emissions. This excludes biofuels. Biofuels used in the transport sector are not covered by the ETS.

Stationary energy

110. The stationary energy sector includes all fossil fuels (gas and coal) used in electricity generation and in direct production of industrial heat, as well as geothermal energy. It does not include energy used for transport, emissions from industrial processes, or heating in commercial or residential facilities.

111. The specific activities included are:

- importing or mining more than 2,000 tonnes of coal annually (but not coal exported);
- importing or mining natural gas (but not natural gas that is exported);
- using geothermal fluid to generate electricity or industrial heat where the level of CO_2-equivalent emissions exceeds 4,000 tonnes annually;
- combusting more than 1,500 tonnes of used waste oil to generate electricity or industrial heat;
- combusting used tyres or waste to generate electricity or industrial heat; and
- refining petroleum where this involves use of intermediate crude oil.

112. Stationary energy participants required to participate in the ETS are usually upstream such as coal mining. However, companies further down the supply chain can opt to take on a mandatory party's obligation if they purchase more than:

- 250,000 tonnes of coal annually; or
- 2 petajoules of natural gas annually.

113. An example is an electricity generator that uses coal, so can take on the surrender obligations of the coal mining company it buys from, with the supplier not then being liable.

114. Participants in this sector must report their emissions and surrender NZUs to reflect these. The sector does not receive any industrial allocations because costs can be passed on to consumers.

115. As the ETS applies to emissions generated in New Zealand it does not apply to coal or natural gas exported from New Zealand. The importing country is responsible for those emissions. However, it does apply to emissions from imported coal.

Waste disposal

116. Waste disposal facilities are obliged to report their emissions and surrender NZUs to cover these emissions. This applies to landfill sites but does not apply to clean-fills or sewage treatment facilities. If the facility combusts waste to generate electricity or industrial heat it is not classified as a waste facility.

117. The liability relates to methane emissions and not CO_2, although significant amounts of CO_2 are produced. Reporting involves calculating the gross tonnage of waste entering the landfill annually and multiplying this by an emissions factor. The result then determines the NZUs to be surrendered. Default emission factors from landfills around the country can be used or the facilities can calculate their actual emissions.

118. No industrial allocations are allocated to this sector because landfill operators are not trade exposed and can pass costs on.

Horticulture

119. Growers in the horticulture sector do not have obligations to report their emissions or surrender NZUs but some activities are eligible for industrial allocations based on the type of crop. Eligible activities are the production of fresh tomatoes, fresh cucumbers, fresh capsicums and cut roses.

120. These types of products are grown in greenhouses and face increased heating costs they cannot pass on due to international competition.

121. The industrial allocation for this sector is calculated using production data (weighed tonnage leaving the gate less crate weight) and not actual power costs so it incentivises these producers to switch to sustainable or renewable energy sources, which don't have an ETS cost.

Agriculture

122. Certain agriculture operations are obliged to report their emissions (methane from animals and nitrous oxide from urine, dung and fertiliser) but they are not required to surrender NZUs to account for their emissions.

123. The activities that must be reported are:

- importing, manufacturing or purchasing (other than for on-selling) synthetic fertilisers containing nitrogen above 1 tonne annually;
- slaughtering ruminant animals, pigs, horses or poultry;
- dairy processing of milk or colostrum from cows or heifers of at least 500 tonnes of milk solids annually; and
- exporting more than 20 live cattle, sheep or pigs from New Zealand.

124. Some agricultural activities (the production of whey powder, lactose, protein meal and gelatine) are eligible for an industry allocation on the basis of being EITE.

Synthetic greenhouse gases

125. SGGs included in the ETS are:

- hydrofluorocarbons (HFCs) – gases commonly found in refrigeration and air-conditioning systems, aerosols, fire protection and foam blowing equipment;
- perfluorocarbons (PFCs) – gases most commonly in refrigeration and air-conditioning systems; and
- sulphur hexafluoride (SF_6) – used in gas-insulated switchgear and circuit breaker equipment and in scientific applications.

126. Parties that manufacture or import HFCs or PFCs in bulk, such as in cannisters, are required to report, but not parties importing goods containing these gases. Importers of goods or motor vehicles that contain these elements pay a carbon price through the Synthetic Gas Levy imposed on them. If SF_6 is used in operating electrical equipment (above the 1 tonne threshold), the user is required to register with the ETS.

127. Importers of HFCs and PFCs and users of SF_6 must surrender NZUs to reflect their emissions. Each gas has a global warming potential value set by how much it affects

the atmosphere when released and this determines the emissions the importers and users report.

128. Importers or exporters of HFCs have additional responsibilities. Parties to the Montreal Protocol, which include New Zealand, must gradually phase down HFC production and use to prevent depletion of the ozone layer.

129. Exporters of SGGs or those who destroy SGGs are eligible to receive NZUs as this is classed as a removal activity. Similarly, parties that export or destroy HFCs or PFCs may be eligible to receive NZUs provided they are registered in the ETS.

Removal activities eligible to receive NZUs

130. Some industrial processes are recognised as removal activities because they cause a reduction of global warming gases in the atmosphere. Registration is voluntary but it enables the earning of NZUs equivalent to the CO_2 removed (CO_2–equivalent).

131. Eligible activities are set out in part 2 of sch 4 of the CCRA with minimum thresholds as set out in Figure | Hoahoa 10.

Figure | Hoahoa 10 – Activity thresholds (tonnes of carbon dioxide equivalent)

Activity	Threshold (tonnes of CO_2e)
Production of methanol	5,000
Storing carbon dioxide after capture	no threshold
Exporting liquid petroleum gas	300
Exporting bulk HFCs or PFCs	1
Exporting HFCs or PFCs in pre-charged equipment	1
Exporting HFCs or PFCs in motor vehicles	1
Destroying HFCs or PFCs in New Zealand	1

132. Free NZUs issued for removal activities are issued after a return is filed with the EPA for the emissions year detailing the emissions removed. There is no provisional allocation as occurs for industrial allocations.

Fishing quota emissions units

133. Although commercial fishing is not a sector within the ETS, its increase in fuel costs from the ETS was recognised by a one-off free allocation of 700,000 NZUs for holders of fishing quota on 24 September 2009. This allocation was made in September 2010 based on the proportion of quota held at that time.

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In draft form these items may not be relied on by taxation officers, taxpayers, or practitioners. Only finalised items represent authoritative statements by Inland Revenue of its stance on the particular issues covered.

You can provide feedback on this draft item by emailing public.consultation@ird.govt.nz.

References | Tohutoro

Legislative references | Tohutoro whakatureture

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Environmental Protection Authority Act 2011

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About this document | Mō tēnei tuhinga

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