



Environmental
Protection Authority
Te Mana Rauhi Taiao

CLIMATE CHANGE RESPONSE ACT 2002

2017 Emissions Trading Scheme Report

for the period 1 July 2017 to 30 June 2018, under section 89 of the Climate Change Response Act 2002



Introduction

The Environmental Protection Authority (EPA) publishes the following information in accordance with section 89 of the Climate Change Response Act 2002 (the Act).

All reported information:

- Is current at 11pm New Zealand Standard Time (NZST) 30 June 2018 and relates to activities that were reported during the 2017/18 financial year (1 July 2017 to 30 June 2018).
- Represents unit transfers recorded in the New Zealand Emission Trading Register (The Register), and is based on current requirements of the Act.

Activities covered in this year's report are:

- Stationary Energy, Industrial Processes, Liquid Fossil Fuels, Waste, Synthetic Greenhouse Gases (within the Industrial Processes sector), Agricultural, and Other Removal activities.
- Pre 1990 Forestry which is forest land first established before 1990 being deforested.
- Post 1989 Forestry which is forest land first established after 1989, and
- Recipients of Forestry and Industrial Allocations.

The forestry sector has been in the New Zealand Emissions Trading Scheme (NZ ETS) since 2008. The Stationary Energy, Industrial Processes, and Liquid Fossil Fuels sectors entered the NZ ETS in 2010. Waste, Synthetic Greenhouse Gases and Agricultural activities concluded their first mandatory emissions reporting in 2012, with Waste and Synthetic Greenhouse Gas activities generating a surrender obligation from the 2013 reporting year.

This report excludes Negotiated Greenhouse Agreements (NGAs), Projects to Reduce Emissions (PRE) and the Permanent Forest Sink Initiative (PFSI).

From 1 January 2017, the one-for-two transitional measure is being phased out incrementally over three years.

The EPA would like to acknowledge the help of the Ministry for the Environment and the Ministry for Primary Industries in compiling this report.

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Table 1: Schedule 3 mandatory activities

This table shows the total number of mandatory participants added to the Participant Register under section 56 or removed from the Participant Register under section 59 of the Act.

Released under section 89(1)(a)

Sector	Activity	Number of Participants added	Number of participants removed	Total number of participants as at 30 June 2018
Part 1 Forestry	Deforesting pre-1990 forest land	8	7	34
Part 2 Liquid Fossil Fuels	Owning obligation fuel	1	1	4
Part 3 Stationary Energy	Importing coal	0	0	5
	Mining coal	4	2	21
	Importing natural gas	1	0	3
	Mining natural gas	4	6	44
	Using geothermal fluid	1	1	22
	Combusting used or waste oil, tyres, or waste	0	0	3
	Using crude oil	0	0	3
Part 4 Industrial Processes	Producing iron or steel	0	0	2
	Producing aluminium	0	0	1
	Producing clinker or burnt lime	0	0	3
	Producing glass using soda ash	0	0	2
	Operating electrical switchgear that uses sulphur hexafluoride	0	0	7
	Importing hydrofluorocarbons or perfluorocarbons	5	0	22
	Importing or manufacturing synthetic fertilisers containing nitrogen	0	0	11
Part 5 Agriculture	Slaughtering ruminant animals, pigs, horses, or poultry	0	0	43
	Dairy processing of milk or colostrum	1	0	16
	Exporting from New Zealand live cattle, sheep, or pigs	0	0	12
Part 6 Waste	Operating a disposal facility	0	0	34
Total participants added or removed (Schedule 3 Activities)		25	17	292

Table 1 does not include activities where there are no participants unless there was a de-registration of participants during the reported period.

The registration for mandatory activities takes effect from the date the participant began the activity or when the activity entered the NZ ETS.

Mandatory participants are removed from the Register on receipt of a notification from the participant, or on the determination of the EPA that they no longer carry out the activity.

For up-to-date information on participants registered in the NZ ETS, visit the Participant Register Report available on the Register: www.emissionsregister.govt.nz

Table 2: Schedule 4 voluntary activities

This table shows the total number of voluntary participants added to the Participant Register under section 57 or removed from the Participant Register under sections 58(4) and 59 of the Act.

Released under section 89(1)(b)

Sector	Activity	Number of Participants added	Number of participants removed	Total number of participants as at 30 June 2017
Part 1 Forestry Removal Activities	Owning post-1989 forest land	264	214	2005
	Holder post-1989 forestry right	31	6	112
	Holder post-1989 forestry lease	2	1	13
Part 2 Other Removal Activities	Producing a product with embedded substances	1	0	2
	Exporting hydrofluorocarbons or perfluorocarbons	2	0	13
Part 3 Liquid Fossil Fuels	Purchasing obligation fuel	0	0	5
Part 4 Stationary Energy	Purchasing natural gas	0	0	3
	Purchasing coal	0	0	3
Total participants added or removed (Schedule 4 Activities)		300	221	2156

Table 2 does not include activities where there are no participants unless there was a de-registration of participants during the reported period.

The registration for voluntary activities under Schedule 4 Parts 3 and 4 takes effect 12 months from the date the EPA notifies the participant that they have been entered on the Participant Register.

Schedule 4 participants are removed from the Register when they apply to withdraw their participation in the scheme or the EPA determines that they no longer carry out the activity. Deregistration for voluntary activities under Schedule 4 Parts 3 and 4 takes effect 48 months from the date the participant has been confirmed as removed.

For up-to-date information on participants registered in the NZ ETS, visit the Register website:

www.emissionsregister.govt.nz

Table 3: Activities reported

This table shows the type of activities reported in emissions returns

Released under section 89(1)(c)

Schedule	Sector	Activity
Schedule 3	Part 1 Forestry	Deforesting pre-1990 forest land
	Part 2 Liquid fossil fuels	Owning obligation fuel
	Part 3 Stationary energy	Importing coal
		Mining coal
		Importing natural gas
		Mining natural gas
		Using geothermal fluid
		Combusting used or waste oil, tyres, or waste
		Using crude oil
	Part 4 Industrial processes	Producing iron or steel
		Producing aluminium
		Producing clinker or burnt lime
		Producing glass using soda ash
		Importing hydrofluorocarbons or perfluorocarbons
		Operating electrical switchgear that uses sulphur hexafluoride
	Part 5 Agriculture	Importing or manufacturing synthetic fertilisers containing nitrogen
		Dairy processing of milk or colostrum
		Exporting from New Zealand live cattle, sheep, or pigs
		Slaughtering ruminant animals, pigs, horses, or poultry
	Part 6 Waste	Operating a disposal facility
Schedule 4	Part 1 Forestry removal activities	Owning post-1989 forest land
		Holder post-1989 forestry right
		Holder post-1989 forestry lease
	Part 2 Other removal activities	Producing a product with embedded substances
		Exporting hydrofluorocarbons or perfluorocarbons
	Part 3 Liquid fossil fuels	Purchasing obligation fuel
	Part 4 Stationary energy	Purchasing natural gas
		Purchasing coal

Refer to Schedules 3 and 4 of the Act and related regulations for the full descriptions of the activities.

Table 4: Total emissions and removals

This table shows the total quantity of emissions and removals reported in emissions returns submitted in the 2017/18 financial year.

Released under section 89(1)(d)

Total quantity of emissions reported in emissions returns	Total quantity of removals reported in emissions returns
74,332,494 tCO ₂ e ¹ emissions	21,398,143 tCO ₂ e removed

A breakdown of the total emissions and removals and the associated reporting periods can be found in Tables 5, 6, and 6.1 of this document. Reported emissions and removals may change as a result of amendments to emissions returns.

This table shows emissions returns received between 1 July 2017 and 30 June 2018, and includes:

- Emissions reported for the 2017 calendar year for all activities in the NZ ETS;
- Removals and emissions between 1 January 2008 and 31 December 2017 for the Forestry Removals sector; and
- Other removal activities can be voluntarily reported quarterly. The above removals were reported during the 2017/18 financial year.

¹ tCO₂e: Carbon dioxide equivalent (CO₂e) is a measure for describing how much global warming a given type and amount of greenhouse gas may cause, using the equivalent amount of CO₂ as the reference. CO₂e is used to account for the different global warming potency of the different greenhouse gases, and allows them to be reported consistently. Gases are converted to CO₂e using the amount of warming they would cause in the 100 years following emission, compared to the effect of CO₂ itself.

Table 4.1 Total amended quantity of emissions reported in previous years

Previous years' emissions may have changed due to amendments to emissions returns or the late submission of emissions returns. The table below details the emissions reported in previous annual ETS reports for each year and the amended figures.

Released under Section 89(1)(d)

Year	Total quantity of emissions previously reported (tCO ₂ e)	Total quantity of emissions after amendments and including forestry emissions (tCO ₂ e)	Change in emissions reported (tCO ₂ e)
2016	78,051,289	74,295,584	-3,755,705 ²
2015	74,217,768	74,218,757	989
2014	83,117,793	83,118,529	736
2013	97,434,965	97,435,222	257
2012	87,820,431	87,820,431	0
2011	32,555,725	32,555,725	0
2010	33,257,657	33,257,657	0

The 2008 and 2009 annual ETS reports did not report total emissions separately for those financial years. Only the forestry sectors participated in the NZ ETS in 2008 and 2009.

Table 4.2 Total amended quantity of removals reported in previous years

This table shows removals reported by the Forestry Removals sector and Other Removal Activities (ORA) sector for the 2012-2016 calendar years and the impact of ORA amendments made during the reported period.

Year	Total quantity of removals previously reported (tCO ₂ e)	Total quantity of removals after amendments and including forestry emissions (tCO ₂ e)	Change in removals reported (tCO ₂ e)
2016	11,064,446	11,077,867	13,421
2015	9,891,712	9,892,015	303
2014	14,383,483	14,383,182	-301
2013	19,527,871	19,527,871	0
2012	24,186,672	24,186,672	0

The figures relate to actual removals for each period reported.

² This change was primarily due to an instance of over-reporting for "slaughtering ruminant animals, pigs, horses, or poultry" in 2016. This did not affect unit surrenders as there is no surrender obligation associated with this activity.

Table 5: Total emissions by activity

This table shows the total quantity of emissions reported in emissions returns by activity.

Released under section 89(1)(e)

Schedule	Sector	Activity	Emissions reported to the EPA from 1 July 2017 to 30 June 2018 (tCO ₂ e)
Schedule 3	Part 1 Forestry	Deforesting pre-1990 forest land	672,647
	Part 2 Liquid fossil fuels	Owning obligation fuel	17,345,591
	Part 3 Stationary energy	Importing coal	977,012
		Mining coal	1,051,436
		Importing natural gas	40,497
		Mining natural gas	10,561,893
		Using geothermal fluid	677,890
		Combusting used or waste oil, tyres, or waste	58,231
		Using crude oil	14,355
	Part 4 Industrial processes	Producing iron or steel	71,388
		Producing aluminium	606,607
		Producing clinker or burnt lime	582,657
		Producing glass using soda ash	14,116
		Operating electrical switchgear that uses sulphur hexafluoride	3,451
		Importing hydrofluorocarbons or perfluorocarbons	1,886,828
	Part 5 Agriculture	Importing or manufacturing synthetic fertilisers containing nitrogen	2,660,762
		Slaughtering ruminant animals, pigs, horses, or poultry	14,276,456 ³
		Dairy processing of milk or colostrum	15,314,701
		Exporting from New Zealand live cattle, sheep, or pigs	28,010
	Part 6 Waste	Operating a disposal facility	1,283,825

³ Note an instance of over-reporting for “slaughtering ruminant animals, pigs, horses, or poultry” is known to have been included in the reporting for this activity in last year’s annual report, and has subsequently been amended. This is included in the changes in emissions reported in Table 4.1. Emissions for this activity in 2016 are very similar to those reported in 2017.

Schedule	Sector	Activity	Emissions reported to the EPA from 1 July 2017 to 30 June 2018 (tCO ₂ e)
Sub-total schedule 3 emissions			68,128,353
Schedule 4	Part 1 Forestry removal activities	Harvesting post-1989 land or removing post-1989 land from the Emissions Trading Scheme	1,527,430
	Part 3 Liquid fossil fuels	Purchasing obligation jet fuel	966,680
	Part 4 Stationary energy	Purchasing natural gas	1,268,218
		Purchasing coal	2,441,813
Sub-total schedule 4 emissions			6,204,141
Total emissions (tCO₂e)			74,332,494⁴

This table is based on data from emissions returns received between 1 July 2017 and 30 June 2018. For non-forestry sectors this shows emissions during the 2017 calendar year for all sectors. For Deforesting pre-1990 forest land the emissions related to the 2017 calendar year, while for post-1989 forestry removal activities the emissions can relate to the 2017 year or the 2008-2016 reporting periods.

⁴ Because of the over-reporting that occurred in the previous year the Total emissions (tCO₂e) figure is significantly lower than in last year's report.

Table 6: Total removals by activity

This table shows the total quantity of forestry removals reported in emissions returns by participants engaged in Schedule 4 Forestry removal activities.

Released under section 89(1)(e)

Sector	Activity	tCO ₂ e removed
Part 1 Forestry removal activities	Forestry removal activities	18,312,405
Total tCO₂e removed		18,312,405

This table is based on data from the emissions returns received, assessed, or amended by the Ministry for Primary Industries and had units transferred by the EPA between 1 July 2017 and 30 June 2018. As 30 June 2018 was the deadline to submit 5 yearly mandatory emissions return for forestry removal activities, there were still emission returns being processed as at 30 June 2018. The emissions reported in this table include any amendments relating to emissions returns originally received in the 2017/18 financial year. Forestry participants are entitled to receive one unit per whole tonne of CO₂e removed. They can choose to report annually and are required to file a mandatory return every 5 years.

Table 6.1 Other removal activities

This table shows the total quantity of removals reported in emissions returns by participants engaged in Schedule 4 Other removal activities.

Released under section 89(1)(e)

Sector	Activity	Removals reported to the EPA (tCO ₂ e)
Part 1 Other removal activities	Producing a product with embedded substances	2,606,193
	Exporting hydrofluorocarbons or perfluorocarbons	479,545
Total tCO₂e removed		3,085,738

Other removal activities are voluntarily reported quarterly. The above removals were reported during the 2017/18 financial year. Other removal activities can be voluntarily reported quarterly. The above removals were reported during the 2017/18 financial year.

Table 7: Compliance with obligations

This table shows the total number of participants who failed to comply with an obligation to submit an emissions return, or surrender or repay units by the specified date.

Released under section 89(1)(f)

	Failed to submit emissions returns	Failed to surrender units	Failed to repay units
Number of participants	168	27	3

All of the reported failures to comply came to light during the 2017/18 financial year, though may not relate to activities within that period.

Table 8: Total units surrendered

This table shows the total number of units surrendered.

Released under section 89(1)(g)

Total number of units surrendered for emissions	
Units surrendered	28,546,774
Less units reimbursed	5,658
Net number of units surrendered	28,541,116

Participants carrying out activities relating to Liquid Fossil Fuels, Stationary Energy, Waste, and Industrial Processes (including Synthetic Greenhouse Gases) were required to surrender one New Zealand Unit for each 1.5 tonnes of 2017 emissions. For activity prior to 2017 non-forestry participants were required to surrender one unit for every two tonnes of emissions. This change is as a result of the phase-out of the one-for-two transitional measure. Forestry participants are required to surrender one New Zealand Unit for each tonne of emissions.

There is no surrender obligation for participants engaged in Agricultural activities for the 2017 reporting year.

Units may be reimbursed if an amendment to an emissions return identifies that the participant surrendered too many units.

Table 9: Total New Zealand Units transferred for removal activities

This table shows the total number of New Zealand Units transferred for removal activities.

Released under section 89(1)(h)

Total number of New Zealand Units transferred for removal activities
20,514,569

This table relates to the units transferred to participants between 1 July 2017 and 30 June 2018.

As a result of the phase out of the one-for-two transitional measure, other removal activities participants were entitled to receive one New Zealand Unit for:

- Each 2 whole tonnes of removals while carrying out their activity before 1 January 2017;

- Each 1.5 whole tonnes of removals while carrying out their activity between 1 January 2017 and 31 January 2017; and
- Each 1.2 whole tonnes of removals while carrying out their activity between 1 January 2018 and 31 January 2018.

Forestry removal participants are entitled to receive one New Zealand Unit for each whole tonne of removals while carrying out their activity.

The number of New Zealand Units transferred for removal activities shown above does not take repayments into consideration. Repayments may occur if an amendment to an emissions return identifies that a participant over-reported their removals, and therefore received too many units.

Forestry removals repayments during the 2017/18 financial year may relate to any of the previous reporting years. Forestry participants must repay one emission unit for each whole tonne of CO₂-e that was over-reported.

Table 10: Total New Zealand Units allocated

This table shows the total number of New Zealand Units allocated under sub-part 2 of part 4 of the Act, less units repaid.

Released under section 89(1)(i)

	Units allocated
Total number of New Zealand Units allocated	6,918,579
Less units repaid	10,701
Net number of New Zealand Units allocated	6,907,878

This table shows units transferred to eligible people between 1 July 2017 and 30 June 2018:

- For the forestry and fishing sectors, there was a one-off allocation under the Forestry Allocation Plan and the Fishing Allocation Plan. All transfers were completed before this reporting year, with the exception of eligible applicants who have not yet completed the Register account opening process
- For Industrial Allocation there are annual allocations of two types; those applying for final allocation for previous year's activity and those applying in advance for a provisional allocation based on projected activity. Due to the phase out of the one-for-two transitional measure, those who applied for a final allocation for 2017 activity received two-thirds of the allocation entitlement. Those who applied for a provisional allocation for 2018 received five-sixths of the full allocation entitlement.

Table 11: Payment of money to meet surrender obligations

This table shows the total sum of money paid to a Crown bank account or paid by the EPA.

Released under section 89(1)(j)(k)

	Money paid
Total sum of money paid to a Crown bank account instead of surrendering units to cover emissions	\$525,475
Total sum of money paid by the EPA instead of reimbursing units	\$0

The information in this table shows payments made between 1 July 2017 and 30 June 2018.

The Act allows participants to meet their emissions surrender obligations through paying money, or a combination of paying money and surrendering units. A participant may satisfy their obligation to surrender units by paying a sum of \$25 for each unit they are liable to surrender into a Crown bank account.

Further Information

Refer to the websites below for further information about climate change and the Emission Trading Scheme.

<https://www.epa.govt.nz/industry-areas/emissions-trading-scheme/>

<http://www.mfe.govt.nz/climate-change/reducing-greenhouse-gas-emissions/new-zealand-emissions-trading-scheme>

For up-to-date information on participants registered in the NZ ETS, visit the Register website:

www.emissionsregister.govt.nz.

Frequently asked questions relating to Industrial Allocations:

<https://www.epa.govt.nz/industry-areas/emissions-trading-scheme/industrial-allocations/>

<http://www.mfe.govt.nz/climate-change/reducing-greenhouse-gas-emissions/new-zealand-emissions-trading-scheme/industry-2>.