



Environmental
Protection Authority
Te Mana Rauhi Taiao

CLIMATE CHANGE RESPONSE ACT 2002

2016 Emissions Trading Scheme Report

for the period 1 July 2016 to 30 June 2017, 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 to 11pm New Zealand Standard Time (NZST) 30 June 2017 and relates to activities that were reported during the 2016/17 financial year (1 July 2016 to 30 June 2017).
- represents actual unit transfers recorded in the New Zealand Emission Trading Register (NZETR), 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, industrial, or fishing 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 full year of 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).

On 26 May 2016 the government decided to phase out the one-for-two transitional measure incrementally over three years, commencing 1 January 2017. The first transactions affected by the phase out are non-forestry removals for 2017 activity and provisional industrial allocations for 2017 production.

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 2017
Part 1 Forestry	Deforesting pre-1990 forest land	7	6	34
Part 2 Liquid Fossil Fuels	Owning obligation fuel	0	1	4
Part 3 Stationary Energy	Importing coal	1	0	5
	Mining coal	0	0	20
	Importing natural gas	0	0	2
	Mining natural gas	1	1	46
	Using geothermal fluid	0	0	12
	Combusting used or waste oil, tyres, or waste	0	1	3
	Using crude oil	1	2	3
Part 4 Industrial Processes	Producing iron or steel	0	0	2
	Producing aluminium	0	0	1
	Producing clinker or burnt lime	0	1	3
	Producing glass using soda ash	0	0	2
	Operating electrical switchgear that uses sulphur hexafluoride	0	0	7
	Importing hydrofluorocarbons or perfluorocarbons	4	1	17
	Importing or manufacturing synthetic fertilisers containing nitrogen	0	0	11
Part 5 Agriculture	Slaughtering ruminant animals, pigs, horses, or poultry	2	1	43
	Dairy processing of milk or colostrum	0	0	15
	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)		16	14	276

Table 1 does not include activities where there are no participants.

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 NZETR: 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	62	111	1,963
	Holder post-1989 forestry right	1	5	86
	Holder post-1989 forestry lease	0	1	12
Part 2 Other Removal Activities	Producing a product with embedded substances	0	1	1
	Exporting hydrofluorocarbons or perfluorocarbons	2	0	11
Part 3 Liquid Fossil Fuels	Purchasing obligation jet 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)		65	118	2,084

Table 2 does not include activities where there are no participants.

The registration for voluntary activities under Part 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 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 NZETR 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 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 2016/17 financial year.

Released under section 89(1)(d)

Total quantity of emissions reported in emissions returns	Total quantity of removals reported in emissions returns
78,051,289 tCO ₂ e ¹ emissions	11,064,446 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 2016 and 30 June 2017, and includes:

- Emissions reported for the 2016 calendar year for all activities in the NZ ETS,
- Removals between 1 January 2008 and 31 December 2016 for the Forestry Removals sector, and
- Removals between 1 April 2016 and 31 March 2017 for Other Removal Activities.

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. CO₂ 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 CO₂ 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)
2015	74,016,414	74,217,768	201,354
2014	82,971,233	83,117,793	146,560
2013	97,408,813	97,434,965	26,152
2012	87,822,267	87,820,431	-1,836
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 for those financial years. Only the forestry sectors participated in the NZ ETS in 2008 and 2009.

There were no changes to previously reported removals associated with the Other Removal Activities Sector.

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 2016 to 30 June 2017 (tCO ₂ e)
Schedule 3	Part 1 Forestry	Deforesting pre-1990 forest land	544,639
	Part 2 Liquid fossil fuels	Owning obligation fuel	16,330,897
	Part 3 Stationary energy	Importing coal	693,208
		Mining coal	1,125,986
		Importing natural gas	59,368
		Mining natural gas	10,725,751
		Using geothermal fluid	739,767
		Combusting used or waste oil, tyres, or waste	59,796
		Using crude oil	10,691
		Part 4 Industrial processes	Producing iron or steel
	Producing aluminium		589,822
	Producing clinker or burnt lime		662,361
	Producing glass using soda ash		11,802
	Operating electrical switchgear that uses sulphur hexafluoride		5,695
	Importing hydrofluorocarbons or perfluorocarbons		2,195,029
	Part 5 Agriculture	Importing or manufacturing synthetic fertilisers containing nitrogen	2,402,035
		Slaughtering ruminant animals, pigs, horses, or poultry	17,808,674 ²

² Note an instance of over-reporting is known to have occurred, however amendments to address this have not yet been completed by the participant. The EPA is actively resolving the matter and adjustment will be made to the reported emissions for the year in the next Section 89 report, as per other reported emissions adjustments in Table 4.1

Schedule	Sector	Activity	Emissions reported to the EPA from 1 July 2016 to 30 June 2017 (tCO ₂ e)
		Dairy processing of milk or colostrum	15,778,113
		Exporting from New Zealand live cattle, sheep, or pigs	77,750
	Part 6 Waste	Operating a disposal facility	1,269,306
Sub-total schedule 3 emissions			71,142,849
Schedule 4	Part 1 Forestry removal activities	Harvesting post-1989 land or removing post-1989 land from the Emissions Trading Scheme	2,331,734
	Part 3 Liquid fossil fuels	Purchasing obligation jet fuel	1,241,529
	Part 4 Stationary energy	Purchasing natural gas	925,557
		Purchasing coal	2,409,620
Sub-total schedule 4 emissions			6,908,440
Total emissions (tCO₂e)			78,051,289

This table shows emissions returns received between 1 July 2016 and 30 June 2017. For non-forestry sectors this shows emissions during the 2016 calendar year for all sectors. For Deforesting pre-1990 land, the emissions related to the 2016 calendar year, while for post-1989 Forestry Removal Activities, the emissions can relate to the 2016 year, or the 2008-2015 reporting periods.

Table 6: Total removals by activity

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

Released under section 89(1)(e)

Sector	Activity	Emissions reporting period	tCO ₂ e removed
Part 1 Forestry removal activities	Forestry removal activities	1 January 2008 to 31 December 2012	1,022
	Forestry removal activities	1 January 2013 to 31 December 2013	162
	Forestry removal activities	1 January 2013 to 31 December 2014	0
	Forestry removal activities	1 January 2013 to 31 December 2015	318,669
	Forestry removal activities	1 January 2013 to 31 December 2016	2,521,564
	Forestry removal activities	1 January 2013 to 30 June 2017	58,056
	Forestry removal activities	1 January 2014 to 31 December 2014	1,692
	Forestry removal activities	1 January 2014 to 31 December 2015	60,346
	Forestry removal activities	1 January 2014 to 31 December 2016	218,878
	Forestry removal activities	1 January 2015 to 31 December 2015	311,910
	Forestry removal activities	1 January 2015 to 31 December 2016	552,110
	Forestry removal activities	1 January 2016 to 31 December 2016	3,543,164
	Forestry removal activities	1 January 2016 to 30 June 2017	96,297
Total tCO₂e removed			7,683,870

This table shows the emissions returns received, assessed, or amended by the Ministry for Primary Industries and processed by the EPA between 1 July 2016 and 30 June 2017. The emissions reported in this table include any amendments relating to emissions returns originally received in the 2016/17 financial year. Forestry participants are entitled to receive one unit per whole tonne of CO₂-e 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	3,034,731
	Exporting hydrofluorocarbons or perfluorocarbons	345,845
Total tCO₂e removed		3,380,576

Other removal activities are voluntarily reported quarterly. The above removals were reported during the 2016/17 financial year, and cover the quarters for the twelve months from 1 April 2016 to 31 March 2017, due to this being the most up-to-date data at the time of reporting.

Table 7: Compliance with obligations

This table shows the total number of participants who failed to comply with their 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	62	12	1

All of the reported failures to comply came to light during the 2016/17 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	22,456,367
Less units reimbursed	7,599
Net number of units surrendered	22,448,768

Participants carrying out activities relating to Liquid Fossil Fuels, Stationary Energy, Waste, and Industrial Processes (including Synthetic Greenhouse Gases) are liable to surrender one unit for each two whole tonnes of emissions from these activities.

There is no surrender obligation for participants engaged in Agricultural activities for the 2016 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
9,509,921

This table relates to the units transferred to participants between 1 July 2016 and 30 June 2017.

Other Removal Activities participants are entitled to receive one New Zealand Unit for each two whole tonnes of removals while carrying out their activity before 1 January 2017. For activity occurring between 1 January 2017 and 31 December 2017 participants are entitled to receive one unit for every 1.5 whole tonnes of removals. 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 represents gross entitlement transfers and 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 2016/17 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	5,819,224
Less units repaid	292,720
Net number of New Zealand Units allocated	5,526,504

This table shows units transferred to eligible people between 1 July 2016 and 30 June 2017:

- 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 NZETR account opening process
- For Industrial Allocation there are annual allocations of two types; those applying for final allocation for previous year's activity and ones applying in advance for a provisional allocation based on projected activity. Due to the one-for-two transitional measure, those applying for a final allocation for activity in 2016 receive one-half of the allocation entitlement. With the phase out of one-for-two commencing in 2017, those applying for a provisional allocation for 2017 receive two-thirds 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	\$34,050
Total sum of money paid by the EPA instead of reimbursing units	\$0

The information in this table shows payments made between 1 July 2016 and 30 June 2017.

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 Register.

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

www.emissionsregister.govt.nz

Frequently asked questions relating to Industrial Allocations:

<http://www.mfe.govt.nz/climate-change/reducing-greenhouse-gas-emissions/new-zealand-emissions-trading-scheme/industry-8>