

# Guernsey Annual Greenhouse Gas Bulletin

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POLICY COUNCIL

THE STATES OF GUERNSEY

## 1.1 Introduction

The Greenhouse Gas Bulletin provides annual updates of Guernsey's greenhouse gas emissions inventory. The data is provided by Aether Limited who compile the figures as part of the UK National Atmospheric Emissions Inventory.

Guernsey signed up to the Kyoto Protocol, which entered its second commitment period in 2013. The analysis provided in this bulletin uses 1990 as a base year for comparison.

## 1.2 Headlines

- Greenhouse gas emissions decreased by 7.0% in 2014, when they totalled 470.1kt of carbon dioxide (CO<sub>2</sub>) equivalent, compared to 505.3kt in 2013.
- The cumulative percentage change in Guernsey's greenhouse gas emissions between 1990 and 2014 was a decrease of 2.8% (or 13.5kt of CO<sub>2</sub> equivalent).
- As in 2013, power generation contributed the largest proportion (25.2%) of the greenhouse gases emitted in 2014. More electricity was produced on island between 2012 and 2014 due to a fault in the cable link to France (see [page 5](#)). Prior to this, in 2011, the largest proportion was from waste.
- The majority (70.6%) of the emissions were in the form of carbon dioxide.

Figure 1.2.1: Total emissions

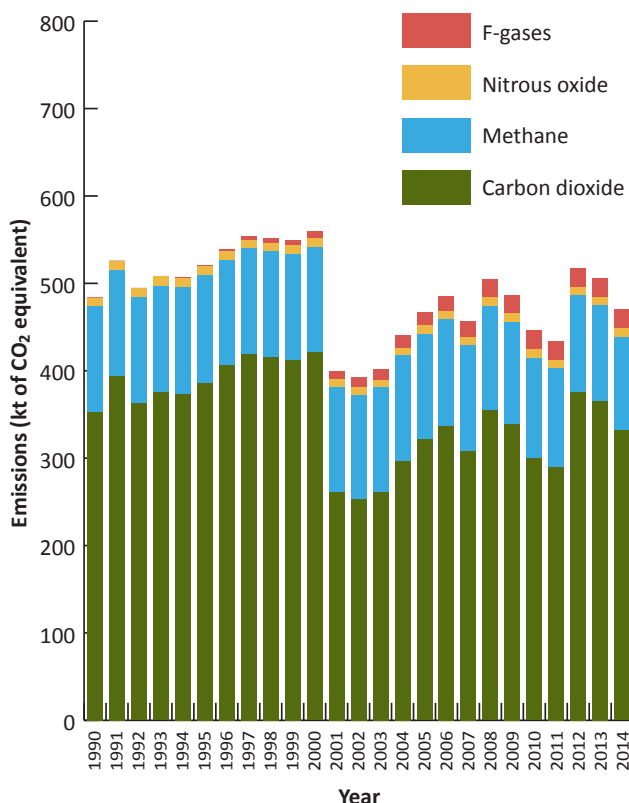


Table 1.2.1: Key data

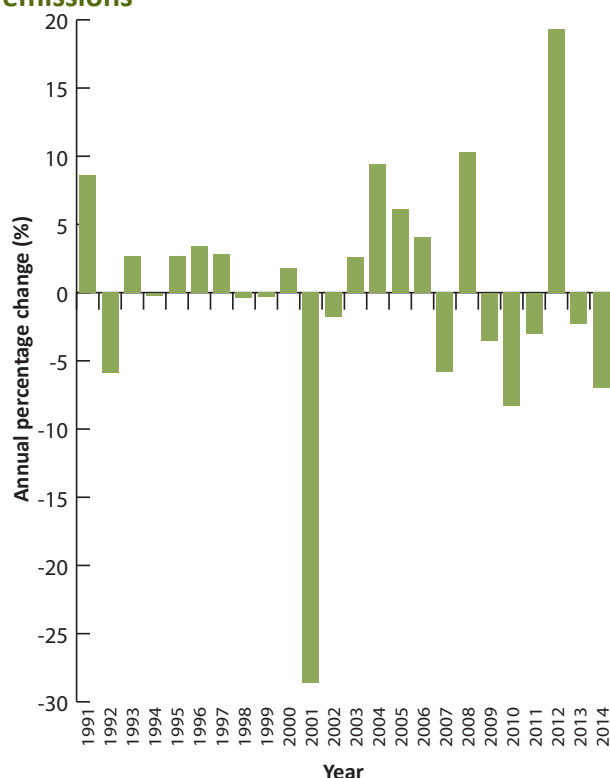
	Total emissions (kt of CO <sub>2</sub> equivalent)	Annual % change	Cumulative % change
1990	483.6		
1991	525.5	8.6	8.6
1992	494.4	-5.9	2.2
1993	507.8	2.7	5.0
1994	506.9	-0.2	4.8
1995	520.8	2.7	7.7
1996	538.7	3.4	11.4
1997	553.6	2.8	14.5
1998	551.5	-0.4	14.0
1999	549.6	-0.3	13.6
2000	559.5	1.8	15.7
2001	399.4	-28.6	-17.4
2002	392.0	-1.8	-18.9
2003	402.1	2.6	-16.9
2004	439.9	9.4	-9.0
2005	466.5	6.1	-3.5
2006	485.5	4.1	0.4
2007	457.2	-5.8	-5.5
2008	504.5	10.3	4.3
2009	486.9	-3.5	0.7
2010	446.6	-8.3	-7.7
2011	433.4	-3.0	-10.4
2012	517.0	19.3	6.9
2013	505.3	-2.3	4.5
2014	470.1	-7.0	-2.8

## 2.1 Emissions Inventory - Type

**Table 2.1.1: Emissions by type**

	Carbon Dioxide (kt)	Methane (kt of CO <sub>2</sub> equivalent)	Nitrous Oxide (kt of CO <sub>2</sub> equivalent)	F-Gases (kt of CO <sub>2</sub> equivalent)
1990	353.0	120.4	10.2	0.0
1991	394.1	121.1	10.3	0.0
1992	362.4	121.6	10.3	0.0
1993	375.0	122.1	10.4	0.3
1994	373.2	122.5	10.4	0.8
1995	385.8	122.9	10.6	1.4
1996	406.7	119.9	9.8	2.3
1997	419.5	120.4	9.9	3.6
1998	415.7	120.7	9.9	5.2
1999	412.5	121.1	9.9	6.0
2000	420.8	121.2	10.0	7.5
2001	261.0	120.1	9.3	9.1
2002	252.9	119.6	9.0	10.4
2003	260.9	120.0	9.0	12.3
2004	296.7	120.3	9.1	13.9
2005	321.2	121.1	9.3	14.9
2006	337.1	121.4	9.3	17.7
2007	308.4	120.4	9.2	19.1
2008	354.7	119.5	9.7	20.6
2009	338.8	117.0	9.7	21.4
2010	299.6	114.8	9.7	22.5
2011	290.1	112.6	9.8	21.0
2012	375.5	110.6	10.1	20.9
2013	365.5	108.8	10.1	21.0
2014	331.8	106.9	10.1	21.3

**Figure 2.1.1: Annual percentage change in total emissions**



Greenhouse gas emissions need to be calculated in a consistent manner across all jurisdictions to ensure comparability and avoid double counting or omissions.

The content and structure of the inventory is based on the categories defined by the United Nations Economic Commission for Europe (UNECE). See [www.unece.org](http://www.unece.org) for more information.

The methodology used to calculate the data is refined each year and the whole data set is revised to ensure comparability between one year and the next. As such, the figures published here should not be compared with those previously published.

Emissions of the greenhouse gases; carbon dioxide, methane, nitrous oxide and fluorinated gases (hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride) are all estimated for the inventory. They are all presented in the form of carbon dioxide (CO<sub>2</sub>) equivalents for ease of comparison.

The Guernsey emissions inventory is compiled by Aether, who lead the compilation of the inventories for UK crown dependencies and applicable overseas territories as part of the UK National Atmospheric Emissions Inventory (NAEI), which is developed and maintained by Ricardo-AEA, in collaboration with Aether, CEH, AMEC and SKM Enviro. The NAEI is funded by the Department of Energy and Climate Change (DECC), Department for Environment, Food and Rural Affairs (Defra), the Scottish Government, the Welsh Government and the Department of Environment, Northern Ireland.

In 2014, Guernsey's emissions totalled 470.1kt of CO<sub>2</sub> equivalent, which equates to 7.5 tonnes per capita. The total was 7.0% lower than in 2013 (see [Table 1.2.1](#)) and 2.8% lower than in 1990.

[Table 2.1.1](#) shows that the majority (70.6%) of Guernsey's emissions are in the form of carbon dioxide (CO<sub>2</sub>). The main source of these emissions is combustion of fossil fuels for power generation, transport and heating i.e. energy.

The variability in recent years as shown in [Figure 2.1.1](#) is largely due to changes in the amount of power being generated on island.

## 3.1 Emissions Inventory - Source

**Figure 3.1.1 and Figure 3.1.2** show the proportions of emissions contributed by different sources. This data is also provided in **Table 3.1.1** overleaf.

Power generation contributed the largest proportion of emissions in both 1990 and 2014 (at 29.7% and 25.2% respectively). Its contribution to total greenhouse gas emissions was 4.5 percentage points lower in 2014 than in 1990.

Waste contributed the second largest proportion in 2014 and the third largest proportion in 1990 (at 23.8% and 24.3% respectively). Its contribution to greenhouse gas emissions was 0.5 percentage points lower in 2014 than in 1990.

Transport contributed 21.9% in 2014 compared with 27.1% in 1990, a decrease of 5.2 percentage points.

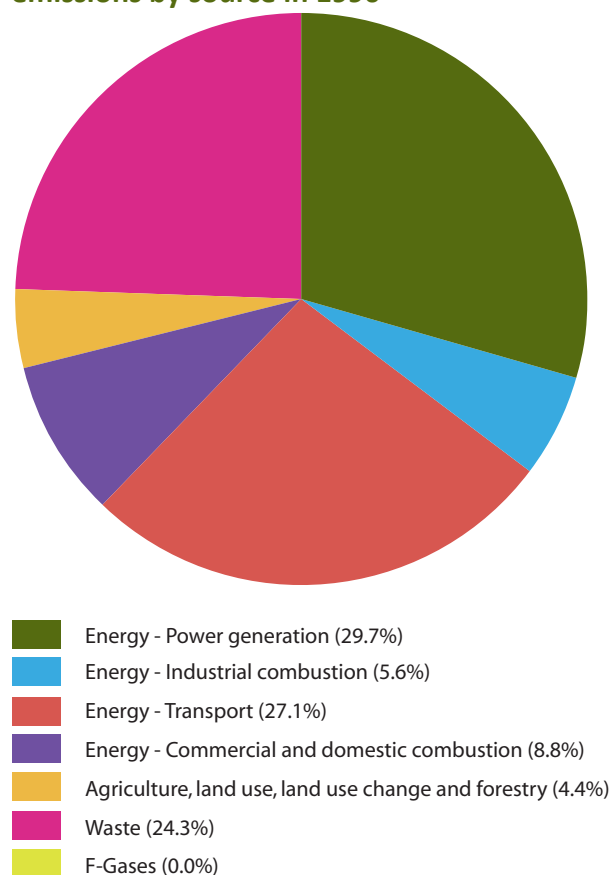
Industrial combustion contributed 10.2% in 2014 compared with 5.6% in 1990, whilst commercial and domestic combustion went from 8.8% in 1990 to 10.6% in 2014.

Agriculture, land use, land use change and forestry contributed 4.4% in 1990 and 3.8% in 2014, a decrease of 0.6 percentage points.

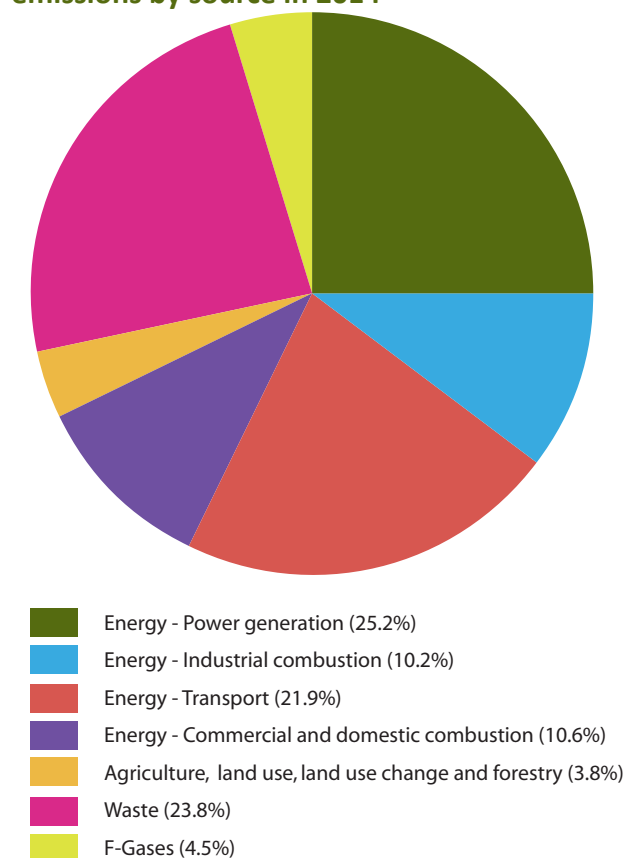
F-Gases, which contributed less than 0.1% in 1990, contributed 4.5% in 2014.

The changes in terms of emissions by mass, rather than proportions, are given on **pages 5 to 11**.

**Figure 3.1.1: Percentage contribution of emissions by source in 1990**



**Figure 3.1.2: Percentage contribution of emissions by source in 2014**



## 3.1 Emissions Inventory - Source

**Table 3.1.1: Percentage contribution of emissions by source**

	Energy - Power generation (%)	Energy - Industrial combustion (%)	Energy - Transport (%)	Energy - Commercial and domestic combustion (%)	Agriculture, land use, land use change and forestry (%)	Waste (%)	F-gases (%)
1990	29.7	5.6	27.1	8.8	4.4	24.3	0.0
1991	32.8	6.1	24.9	9.5	4.1	22.5	0.0
1992	29.8	5.6	27.1	9.1	4.4	24.0	0.0
1993	30.3	5.7	27.1	9.1	4.3	23.5	0.1
1994	30.5	5.7	26.6	9.1	4.3	23.7	0.2
1995	30.9	5.8	26.4	9.3	4.1	23.1	0.3
1996	30.8	6.2	26.8	10.1	3.2	22.5	0.4
1997	30.3	6.2	28.1	9.6	3.1	21.9	0.7
1998	31.9	5.8	26.8	9.3	3.1	22.1	0.9
1999	32.8	5.3	26.7	8.7	3.2	22.3	1.1
2000	30.1	6.1	28.1	9.2	3.1	22.0	1.3
2001	10.2	6.0	35.8	10.9	4.0	30.9	2.3
2002	9.1	6.7	34.9	11.2	3.9	31.6	2.7
2003	10.4	6.7	33.8	11.3	3.9	30.9	3.0
2004	8.0	11.9	30.7	14.4	3.6	28.3	3.2
2005	11.0	12.3	29.0	14.2	3.5	26.8	3.2
2006	21.4	8.3	26.4	11.0	3.4	25.8	3.6
2007	16.3	8.6	29.1	11.0	3.7	27.2	4.2
2008	23.1	10.6	22.4	11.9	3.3	24.6	4.1
2009	21.0	10.9	23.1	12.2	3.5	25.0	4.4
2010	12.7	12.8	24.6	14.2	3.8	26.8	5.0
2011	15.6	11.1	25.0	12.3	3.9	27.2	4.8
2012	30.5	9.4	20.4	10.0	3.3	22.4	4.0
2013	28.1	10.2	20.7	10.9	3.5	22.5	4.1
2014	25.2	10.2	21.9	10.6	3.8	23.8	4.5

Combustion of fuels for energy (including electricity generation, heating, industrial processes and transport) has contributed the largest proportion of emissions since 1990. The majority of the emissions are in the form of carbon dioxide, but methane and nitrous oxide are also released in the combustion processes. In 2014, emissions from fuels for energy constituted 67.9% of the total emissions.

The emissions inventory is “source based”, which means it reflects only emissions released from Guernsey. As such, emissions resulting from the generation of electricity in Europe, which is imported for consumption in Guernsey, are not included. Electricity has been imported via a cable link to France since 2001, resulting in a significant decrease in the amount of power generated on-island.

Landfilled waste is the next largest contributor to Guernsey’s total emissions and the proportion it has contributed has changed little since 1990. The emissions are mostly in the form of methane gas, which is released by decomposing material.

Agriculture, land use, land use change and forestry combined contribute a small proportion of total emissions (3.8% in 2014). The majority of the emissions are methane released by the digestive processes of cattle. Nitrous oxide is also released as a result of the combustion of fuels for energy and as a result of waste disposal and agricultural processes, but at comparatively low levels.

The fluorinated gases (“F-gases”) are not estimated by source in the same way as the other three gases mentioned above. They are associated with chemicals used in refrigeration, air-conditioning and heat pump systems and can be released as greenhouse gases if the systems leak or are disposed of improperly.

More detail and analysis of Guernsey emissions by source is provided over the next pages.

## 4.1 Emissions by Source - Energy

Combustion of fuels for power generation contributed 25.2% of Guernsey's total greenhouse gas emissions in 2014 (see [Table 3.1.1](#)). The majority of the emissions are in the form of carbon dioxide, but small amounts of methane and nitrous oxide are also released in the combustion processes.

Electricity has been imported via a cable link to France since 2001, reflected by a 75.9% decrease in power generation emissions between 2000 and 2001 (see [Table 4.1.1](#)).

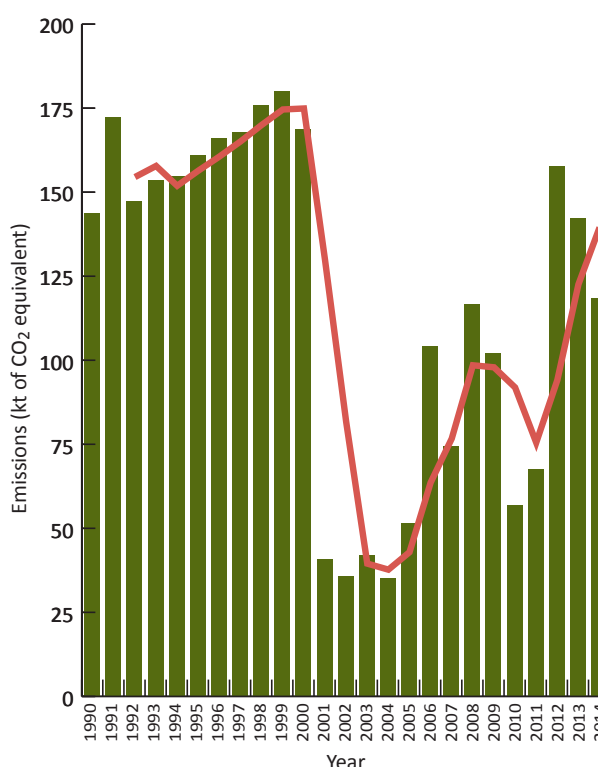
Excepting this large change, levels of greenhouse gas emitted from Guernsey as a result of fuel combusted for power generation have generally been trending upwards since 1990 (see [Figure 4.1.1](#)). The red line on the chart shows the historic three year average.

Prior to 2000, when all of Guernsey's electricity was generated on island, power generation was the single largest component contributor to Guernsey's total emissions. Some electricity is still generated on island and it is this amount which impacts most noticeably on the total level of emissions.

The amount of electricity generated on island varies from year to year. In 2012, a fault in the cable link to France resulted in the need to generate electricity on island, resulting in an increase in power generation emissions between 2011 and 2012 of 133.1%. These emissions fell by 9.8% between 2012 and 2013 and again by 16.7% from 2013 to 2014, when the fault was repaired.

In total, the emissions from power generation decreased by 17.6% (or 25.4kt of CO<sub>2</sub> equivalent) between 1990 and 2014.

**Figure 4.1.1: Energy emissions - Power generation**

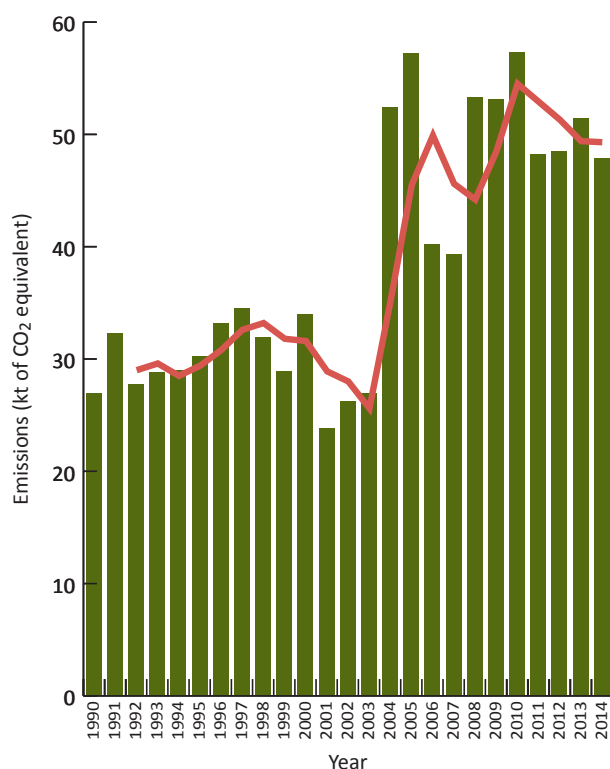


**Table 4.1.1: Energy emissions - Power generation**

	Total emissions (kt of CO <sub>2</sub> equivalent)	Annual % change	Cumulative % change
1990	143.8		
1991	172.3	19.8	19.8
1992	147.4	-14.5	2.5
1993	153.6	4.2	6.8
1994	154.7	0.7	7.5
1995	161.0	4.1	12.0
1996	166.2	3.2	15.5
1997	168.0	1.1	16.8
1998	175.8	4.6	22.2
1999	180.1	2.5	25.3
2000	168.7	-6.4	17.3
2001	40.7	-75.9	-71.7
2002	35.8	-12.0	-75.1
2003	42.0	17.3	-70.8
2004	35.2	-16.2	-75.5
2005	51.5	46.4	-64.2
2006	104.1	102.1	-27.6
2007	74.6	-28.3	-48.1
2008	116.8	56.4	-18.8
2009	102.2	-12.5	-29.0
2010	56.8	-44.4	-60.5
2011	67.7	19.1	-52.9
2012	157.7	133.1	9.7
2013	142.3	-9.8	-1.1
2014	118.4	-16.7	-17.6

## 4.1 Emissions by Source - Energy

**Figure 4.1.2: Energy emissions - Industrial combustion**



**Table 4.1.2: Energy emissions - Industrial combustion**

	Total emissions (kt of CO <sub>2</sub> equivalent)	Annual % change	Cumulative % change
1990	26.9		
1991	32.3	19.7	19.7
1992	27.7	-14.2	2.7
1993	28.8	4.2	7.1
1994	29.0	0.7	7.8
1995	30.2	4.1	12.2
1996	33.2	9.7	23.1
1997	34.5	4.0	28.0
1998	31.9	-7.5	18.4
1999	28.9	-9.4	7.3
2000	34.0	17.6	26.2
2001	23.8	-30.0	-11.6
2002	26.2	10.2	-2.6
2003	26.9	2.4	-0.3
2004	52.4	94.9	94.4
2005	57.2	9.2	112.3
2006	40.2	-29.7	49.2
2007	39.3	-2.3	45.7
2008	53.3	35.6	97.6
2009	53.1	-0.3	96.9
2010	57.3	8.0	112.7
2011	48.2	-15.8	79.0
2012	48.5	0.6	80.0
2013	51.4	6.1	90.9
2014	47.9	-6.9	77.8

Energy emissions also include industrial combustion emissions (relating to building processes, use of generators etc), which increased by 77.8% (or 21kt of CO<sub>2</sub> equivalent) between 1990 and 2014 (see **Figure 4.1.2** and **Table 4.1.2**). The red line on the chart shows the historic three year average.

The majority of the emissions are in the form of carbon dioxide, but small amounts of methane and nitrous oxide are also released in the combustion processes.

This source was the fifth largest contributor to emissions in 2014, at 47.9kt of CO<sub>2</sub> equivalent.

In 2014, emissions from industrial combustion contributed the same proportion to the total (10.2%) as in 2013, although the actual amount was 3.5kt of CO<sub>2</sub> equivalent lower in 2014.

The methodology behind the calculations is constantly being refined and, as such, the figures published here should not be compared with those previously published.

## 4.1 Emissions by Source - Energy

Emissions from transport decreased between 1990 and 2014 by 21.5% (28.1kt of CO<sub>2</sub> equivalent) to 102.9kt of CO<sub>2</sub> equivalent (see **Figure 4.1.3** and **Table 4.1.3**). The red line on the chart shows the historic three year average.

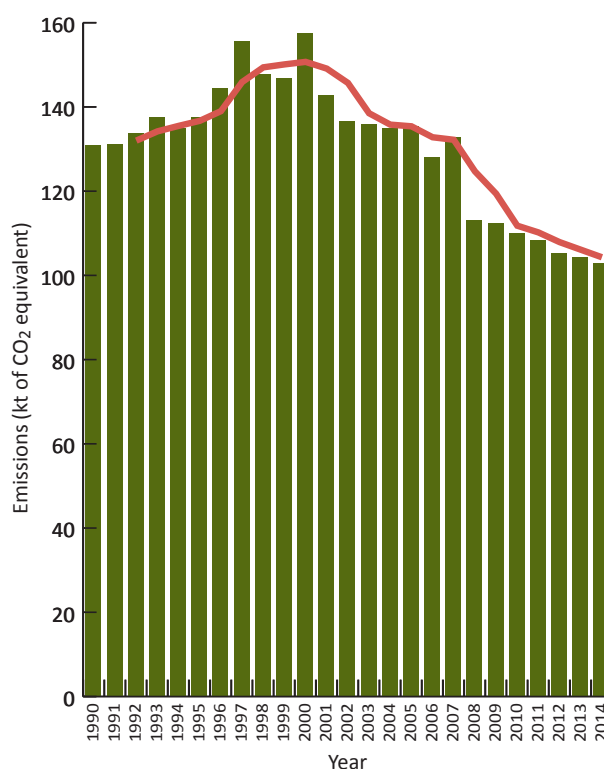
Despite this decrease, emissions from this source constituted the third largest proportion of the total in 2014, when it contributed 32.2% of energy emissions and 21.9% of total emissions.

Similar to previous years, approximately 80% of transport emissions resulted from on-island road transport in 2014.

Levels of greenhouse gases emitted as a result of transport have generally been trending downwards since a peak in 2000 (see **Figure 4.1.3**).

The majority of greenhouse gas emissions resulting from transport are carbon dioxide. Other non-greenhouse gas air pollutants, such as nitrogen dioxide, sulphur dioxide are also present in vehicle exhaust emissions.

**Figure 4.1.3: Energy emissions - Transport**

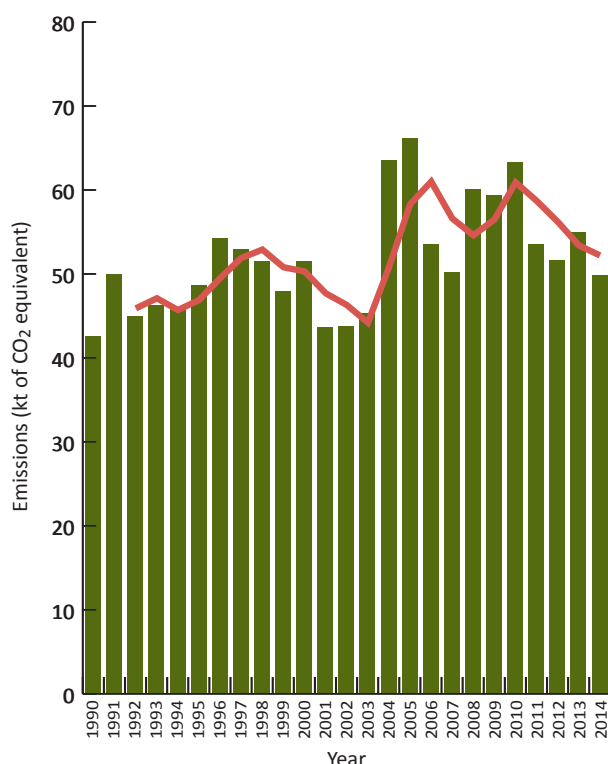


**Table 4.1.3: Energy emissions - Transport**

	Total emissions (kt of CO <sub>2</sub> equivalent)	Annual % change	Cumulative % change
1990	131.0		
1991	131.1	0.0	0.0
1992	133.9	2.1	2.2
1993	137.7	2.9	5.1
1994	135.0	-2.0	3.0
1995	137.5	1.8	4.9
1996	144.6	5.2	10.3
1997	155.7	7.7	18.8
1998	147.8	-5.1	12.8
1999	146.8	-0.7	12.0
2000	157.5	7.3	20.2
2001	142.9	-9.2	9.1
2002	136.6	-4.4	4.3
2003	136.0	-0.4	3.8
2004	134.9	-0.9	2.9
2005	135.4	0.4	3.4
2006	128.1	-5.4	-2.2
2007	132.9	3.7	1.4
2008	113.1	-14.9	-13.7
2009	112.4	-0.6	-14.2
2010	110.0	-2.1	-16.0
2011	108.3	-1.5	-17.3
2012	105.4	-2.7	-19.5
2013	104.4	-0.9	-20.3
2014	102.9	-1.4	-21.5

## 4.1 Emissions by Source - Energy

**Figure 4.1.4: Energy emissions - Commercial and domestic combustion**



Commercial and domestic combustion of fuels for heating and hot water in homes and offices etc also contribute a substantial amount of the island's emissions (10.6% of the 2014 total).

The emissions from commercial and domestic combustion were 49.9kt of CO<sub>2</sub> equivalent in 2014, which was 17.2% higher than in 1990 but 9.1% lower than in 2013 (see [Table 4.1.4](#)).

The emissions from this source have ranged from 43kt to over 66kt of CO<sub>2</sub> equivalent over the twenty-five years covered by the inventory.

The red line on the chart shows the historic three year average.

**Table 4.1.4: Energy emissions - Commercial and domestic combustion**

	Total emissions (kt of CO <sub>2</sub> equivalent)	Annual % change	Cumulative % change
1990	42.6		
1991	50.0	17.4	17.4
1992	44.9	-10.2	5.4
1993	46.3	3.0	8.6
1994	45.9	-0.9	7.6
1995	48.6	5.9	14.0
1996	54.2	11.6	27.2
1997	52.9	-2.4	24.1
1998	51.5	-2.6	20.8
1999	47.9	-7.0	12.4
2000	51.5	7.6	20.9
2001	43.6	-15.5	2.2
2002	43.8	0.5	2.7
2003	45.3	3.4	6.2
2004	63.5	40.2	48.9
2005	66.1	4.2	55.1
2006	53.5	-19.1	25.6
2007	50.2	-6.2	17.8
2008	60.1	19.7	40.9
2009	59.4	-1.1	39.3
2010	63.3	6.6	48.6
2011	53.5	-15.5	25.6
2012	51.6	-3.6	21.1
2013	55.0	6.5	29.0
2014	49.9	-9.1	17.2



## 4.2 Emissions by Source - Agriculture, land use, land use change and forestry

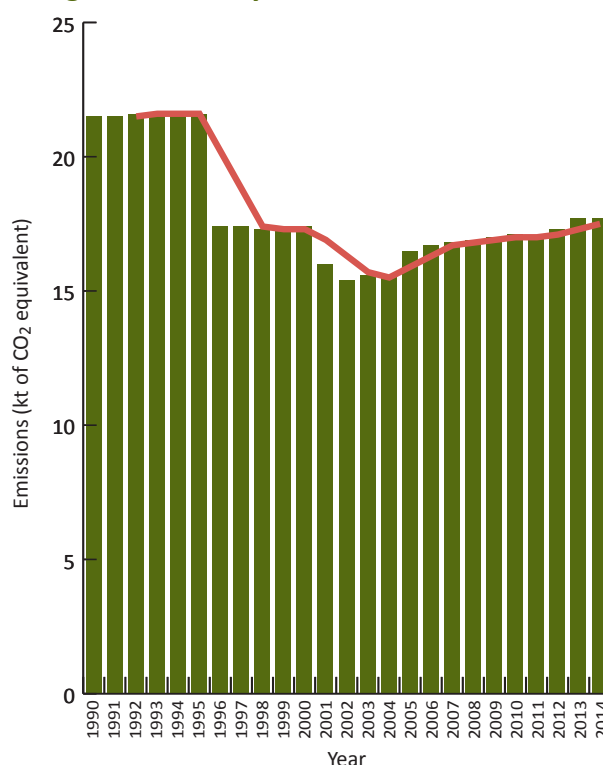
Other emissions include those from agriculture, land use, land use change and forestry (shown in **Figure 4.2.1**), which contributed 3.8% of the total emissions in 2014. The red line on the chart shows the historic three year average.

The majority of these emissions are methane released by the digestive processes of cattle. The decrease between 1995 and 1996 resulted from a change in the way cattle data were sourced.

There was a decrease in the number of cattle in the island in 2001, when the milk quota was reduced, resulting in a reduction in emissions from cattle. Livestock-related emissions have since remained at a steady level. However, there has been a generally increasing trend in total emissions from this source since 2002, due to increasing emissions resulting from land use change.

The total level of emissions from these sources has decreased by 17.6% between 1990 and 2014.

**Figure 4.2.1: Agriculture, land use, land use change and forestry emissions**

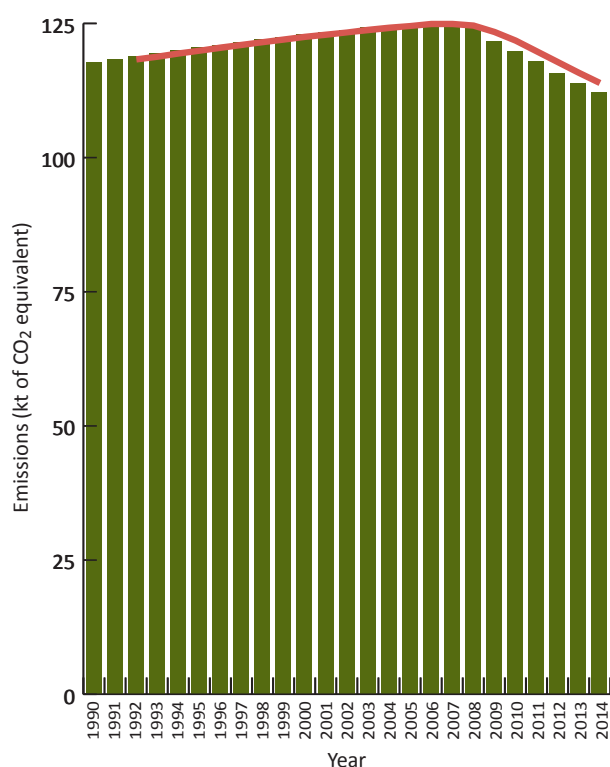


**Table 4.2.1: Agriculture, land use, land use change and forestry emissions**

	Total emissions (kt of CO <sub>2</sub> equivalent)	Annual % change	Cumulative % change
1990	21.5		
1991	21.5	0.0	0.0
1992	21.6	0.5	0.5
1993	21.6	0.0	0.5
1994	21.6	-0.2	0.3
1995	21.6	0.0	0.3
1996	17.4	-19.4	-19.2
1997	17.4	0.1	-19.1
1998	17.3	-0.3	-19.3
1999	17.3	-0.1	-19.4
2000	17.4	0.4	-19.1
2001	16.0	-7.9	-25.5
2002	15.4	-3.8	-28.3
2003	15.6	1.2	-27.4
2004	15.6	0.3	-27.2
2005	16.5	5.4	-23.3
2006	16.7	1.3	-22.3
2007	16.8	0.6	-21.8
2008	16.9	0.5	-21.4
2009	17.0	0.6	-20.9
2010	17.1	0.6	-20.5
2011	17.0	-0.3	-20.7
2012	17.3	1.4	-19.7
2013	17.7	2.3	-17.8
2014	17.7	0.2	-17.6

## 4.3 Emissions by Source - Waste

**Figure 4.3.1: Waste emissions**



**Table 4.3.1: Waste emissions**

	Total emissions (kt of CO <sub>2</sub> equivalent)	Annual % change	Cumulative % change
1990	117.7		
1991	118.3	0.5	0.5
1992	118.9	0.5	1.0
1993	119.4	0.5	1.4
1994	120.0	0.5	1.9
1995	120.5	0.4	2.3
1996	120.9	0.4	2.7
1997	121.5	0.4	3.2
1998	122.0	0.4	3.6
1999	122.5	0.4	4.1
2000	122.9	0.3	4.4
2001	123.3	0.4	4.8
2002	123.8	0.3	5.1
2003	124.2	0.3	5.5
2004	124.5	0.3	5.8
2005	124.9	0.3	6.1
2006	125.2	0.3	6.4
2007	124.5	-0.6	5.7
2008	124.1	-0.3	5.4
2009	121.7	-1.9	3.4
2010	119.8	-1.6	1.7
2011	117.9	-1.6	0.1
2012	115.8	-1.7	-1.6
2013	113.8	-1.7	-3.3
2014	112.1	-1.5	-4.7

Waste is the next largest contributor to Guernsey's total emissions after energy. It contributed 23.8% (112.1kt of CO<sub>2</sub> equivalent) of the total emissions in 2014.

The emissions are mostly (85%) in the form of methane gas, which is released as landfilled matter decomposes. In a weight for weight comparison, methane has a twenty one times higher global warming potential than carbon dioxide i.e. one kilotonne of methane is equivalent to 21 kilotonnes of carbon dioxide.

As a result, relatively small changes in the amount of methane emitted equate to considerably larger changes to emissions in terms of CO<sub>2</sub> equivalents.

There have been decreases in the emissions from this source since 2007 (see [Figure 4.3.1](#) and [Table 4.3.1](#)). This mirrors the trend in waste going to landfill during these years.

The cumulative decrease between 1990 and 2014 was 4.7% (or 5.6kt of CO<sub>2</sub> equivalent). The red line on the chart shows the historic three year average.

## 5.1 Emissions - F-Gases

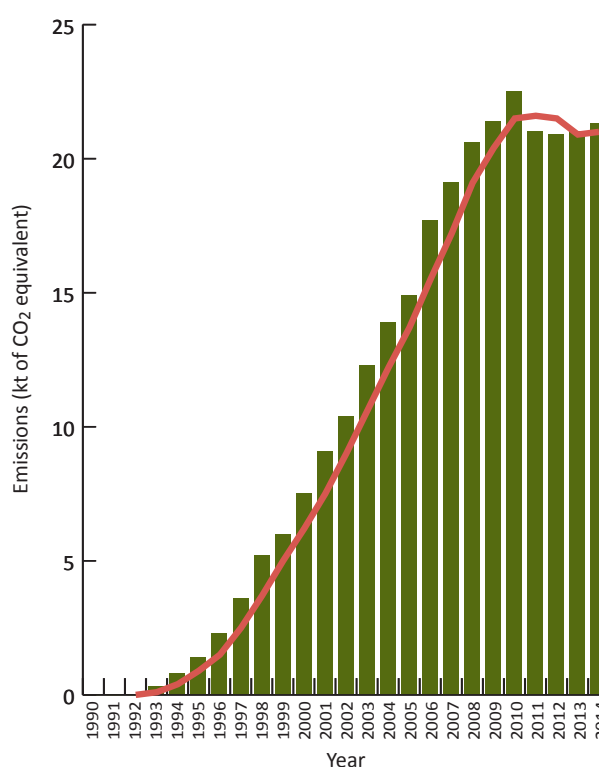
Fluorinated gases (“F-gases”) are not estimated by source in the same way as the other three gases mentioned above, but are included in the total greenhouse gas emissions.

F-gases can be released by refrigeration, air-conditioning and heat pump systems if they leak or are disposed of improperly. They contribute a relatively small, but increasing amount of total emissions (see **Figure 5.1.1**). The red line on the chart shows the historic three year average.

In 2014, they contributed 4.5% of the total, compared to less than 0.01% in 1990, an increase of 21.3kt of CO<sub>2</sub> equivalent.

F-gases have very high global warming potentials compared to carbon dioxide. As such, amounts in the region of one gram in weight could have the same effect as one tonne of carbon dioxide being released into the atmosphere. The result of this is a highly volatile trend in terms of percentage changes.

**Figure 5.1.1: F-gases emissions**



**Table 5.1.1: F-gases emissions**

	Total emissions (kt of CO <sub>2</sub> equivalent)	Annual % change	Cumulative % change
1990	0.0		
1991	0.0	12.8	12.8
1992	0.0	24.5	40.4
1993	0.3	662.7	970.9
1994	0.8	145.8	2,532.5
1995	1.4	76.2	4,539.3
1996	2.3	60.3	7,335.8
1997	3.6	58.2	11,660.5
1998	5.2	43.5	16,773.8
1999	6.0	15.3	19,348.2
2000	7.5	23.9	23,987.4
2001	9.1	21.1	29,067.9
2002	10.4	15.3	33,523.6
2003	12.3	17.6	39,426.3
2004	13.9	13.1	44,622.0
2005	14.9	7.6	48,014.1
2006	17.7	18.7	57,007.6
2007	19.1	7.7	61,422.4
2008	20.6	7.8	66,191.3
2009	21.4	4.0	68,839.3
2010	22.5	5.3	72,485.5
2011	21.0	-6.9	67,450.9
2012	20.9	-0.3	67,235.5
2013	21.0	0.3	67,430.2
2014	21.3	1.6	68,543.0

## 6.1 Further Information

This bulletin has been compiled by the States of Guernsey Policy and Research Unit. The Guernsey emissions inventory is compiled by Aether, who lead the compilation of the inventories for UK crown dependencies and applicable overseas territories as part of the UK National Atmospheric Emissions Inventory (NAEI), which is developed and maintained by Ricardo-AEA, in collaboration with Aether, CEH, AMEC and SKM Enviros. The NAEI is funded by the Department of Energy and Climate Change (DECC), Department for Environment, Food and Rural Affairs (Defra), the Scottish Government, the Welsh Government and the Department of Environment, Northern Ireland.

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