

CARBON FUND

ANNUAL REPORT 2013



National Treasury Management Agency

REPORT AND ACCOUNTS OF THE CARBON FUND FOR THE YEAR ENDED 31 DECEMBER 2013



Gníomhaireacht Bainistíochta an Chisteáin Náisiúnta
National Treasury Management Agency

30 June 2014

Mr. Phil Hogan TD
Minister for the Environment, Community
and Local Government,
Custom House,
Dublin 1

Dear Minister,

I have the honour to submit to you the Report and Accounts of the Carbon Fund for the period ended 31 December 2013.

Yours sincerely

John C. Corrigan
Chief Executive





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LEGAL FRAMEWORK

This report relates to the purchase of carbon units for compliance by Ireland with its greenhouse gas emission reduction commitment in the Kyoto Protocol compliance period 2008-2012. For the purposes of the Protocol, Ireland undertook to limit its average annual emissions of greenhouse gases over the five-year period to no more than 13 per cent more than the level of emissions in 1990. This is equivalent to a cap of 62.8 Mt CO_{2e} per annum over the five year period.

Ireland's strategy to achieve this target was set out in the National Climate Change Strategy 2007-2012 published by the Department of the Environment, Community and Local Government. The strategy provided for the purchase of carbon credits in respect of emissions reductions achieved elsewhere as an offset for any emissions by Ireland in excess of its Kyoto commitments. It was originally estimated that it would be necessary for the Government to purchase carbon credits to cover a projected 3.6 million tonnes of excess emissions in respect of each year of the 2008–2012 period. Following the rapid and severe deterioration in economic conditions and the anticipated lower rate of growth in the Irish economy over this period, the requirement to purchase credits was significantly reduced.

Under the Carbon Fund Act 2007, a Carbon Fund was established for the purchase of carbon credits to supplement domestic mitigation action. Management of the Fund was delegated to the National Treasury Management Agency, which was also designated the purchasing agent for the acquisition of these necessary credits. Carbon credits are referred to in the legislation as Kyoto Units.

Section 6 of the Carbon Fund Act 2007 states: "As soon as may be, but not later than 6 months after the end of each financial year of the [National Treasury Management] Agency, the Agency shall make a report to the Minister [for the Environment, Community and Local Government] of its activities in relation to the performance during the year concerned of the functions delegated to it under this Act, and the Minister shall cause copies of the report to be laid before each House of the Oireachtas."

This report is the seventh report to the Minister for the Environment, Community and Local Government under the Act, and covers the year ended 31 December 2013.



**THE CARBON FUND
WAS ESTABLISHED
FOR THE PURCHASE
OF CARBON CREDITS
TO SUPPLEMENT
DOMESTIC MITIGATION
ACTION**

THE KYOTO PROTOCOL AND 2020 GREENHOUSE GAS MITIGATION TARGETS

At the UN conference held in Rio de Janeiro in 1992 a Framework Convention on Climate Change was agreed. Under the Convention, industrialised countries were expected to take the lead in reducing greenhouse gas emissions¹ to 1990 levels. The Protocol to the Framework Convention on Climate Change was adopted in 1997 at the UN Climate Conference in Kyoto, Japan. The Kyoto Protocol, as it is commonly called, originally addressed the period 2008–2012. A detailed chronology of the developments leading to and following the adoption of the Kyoto Protocol can be found in the Carbon Fund Report 2012.²



- 1 Carbon Dioxide (CO₂) is the most common greenhouse gas and a tonne of CO₂ is used as the common unit of measure. Emissions of other greenhouse gases are measured as equivalents of carbon dioxide (CO_{2e}) in terms of their Global Warming Potential (GWP) over a 100-year period. By definition, CO₂ has the GWP of 1. Below is a list of the GWPs for the main gas types:

	GWP-100
Carbon dioxide (CO ₂)	1
Methane (CH ₄)	21
Nitrous Oxide (N ₂ O)	310
Hydrofluorocarbons (HFCs)	150 – 11,700
Perfluorocarbons (PFCs)	6,500 – 9,200
Sulphur Hexafluoride (SF ₆)	23,900

- 2 See: http://www.ntma.ie/publications/?wpfb_file_year=2013

OBLIGATIONS UNDER THE KYOTO PROTOCOL

The defining feature of the Kyoto Protocol was that the Protocol had mandatory targets for reductions in greenhouse gas emissions for the world's leading economies. These, primarily the major industrialised countries and some former Soviet bloc countries, are known as Annex B countries.³ The targets ranged from reductions of 8 per cent to increases of 10 per cent on 1990 emissions levels, with the aim of reducing overall emissions by 5 per cent below the 1990 level. The commitment period for these reductions was 2008-2012.



Kyoto Greenhouse Gas Emissions Targets	
Country	Target for 2008-2012 by reference to 1990 levels
EU-15 ⁴ , Bulgaria, Czech Republic, Estonia, Latvia, Liechtenstein, Lithuania, Monaco, Romania, Slovakia, Slovenia and Switzerland	-8%
US ⁵	-7%
Canada ⁶ , Hungary, Japan and Poland	-6%
Croatia	-5%
New Zealand, Russian Federation and Ukraine	0
Norway	+1%
Australia	+8%
Iceland	+10%

3 Annex B countries are those listed in Annex B of the Kyoto Protocol and are the 39 countries with quantified emission limitation or reduction commitments. However, there is some overlap in that the European Union (EU-15) is itself a signatory while the 15 countries that were Member States of the EU at that time, including Ireland, are also listed. (See Appendix 1 for greater detail).

4 The EU-15 decided to take advantage of a scheme under the Kyoto Protocol known as a "bubble" whereby countries have individual targets which are combined to make an overall target for that group of countries (Article 4).

5 The US did not ratify the Kyoto Protocol. This target is therefore void.

6 Canada's target is no longer valid, as it withdrew from the Kyoto Protocol in December 2011.

THE EUROPEAN UNION AND THE KYOTO PROTOCOL

The EU-15 had an internal burden sharing agreement to meet its 8 per cent emissions reduction target by distributing different targets to its Member States. Ireland's target was to achieve emissions of no more than 13 per cent above the 1990 levels. The details for the EU-15 are:

Country	Target for 2008-2012 by reference to 1990 levels
Austria	-13%
Belgium	-7.5%
Denmark	-21%
Finland	0%
France	0%
Germany	-21%
Greece	25%
Ireland	13%
Italy	-6.5%
Luxembourg	-28%
Netherlands	-6%
Portugal	27%
Spain	15%
Sweden	4%
UK	-12.5%
EU-15	-8%

The EU-15 decided, as a major pillar of its climate policy, to collectively create a European-wide "cap and trade" scheme for major polluters – the European Union Emissions Trading Scheme (EU ETS). Under the scheme, the carbon emissions of approximately 11,000 installations across the EU are controlled. Over 100 Irish installations participate in the scheme.

EU Emissions	
TRADED SECTOR EU Emissions Trading Scheme	NON-TRADED SECTOR
46% of EU CO₂ emissions	54% of EU CO₂ emissions
<ul style="list-style-type: none"> • Combustion installations >20MW thermal input • Iron and steel • Oil refineries • Cement, lime, glass, ceramics • Pulp / paper • Airlines 	<ul style="list-style-type: none"> • Residential • Transport • Agriculture etc.

This scheme sets a cap on the level of emissions for individual installations. Installations were issued allowances – European Union Allowances (EUAs) - which give them the right to emit up to that level. To the extent that installations emitted more than their allowances they had to buy credits. Those who emitted less than their allowances could sell their surplus. For the period 2008–2012, the allocations of allowances to installations were made on a country-by-country basis within each country's overall National Allocation Plan. In Ireland the allocation to the ETS sectors in 2008 – 2012 was 22.28 Mt CO₂ per year⁷.

Some of the 22.28 Mt CO₂ allocation to the ETS Sectors in 2008 to 2012 was put aside for those who entered an industry covered by the EU ETS during the period 2008- 2013 , so as to avoid them being placed at a competitive disadvantage versus those already in the scheme, who had been allocated units (New Entrants Reserve). To the degree that these new entrant allowances are not used, they revert to the State. Equally if a firm closed, its allowances reverted initially to the New Entrants Reserve (NER) and ultimately the State.

⁷ In the period after 2012, allocations of allowances will be done by sector across the EU ETS and there will be no national allocation plans. Airlines were included in the EU ETS from the 1st January 2012

Given the economic slowdown in Ireland the units set aside for the new entrants were not fully utilised and will form an extra source of carbon units available for compliance purposes for the State⁸. It is currently estimated that this will amount to approximately 6.55 million tonnes of CO_{2e} over the five year Kyoto period.⁹

The table below compares actual allocations to installations during 2008-2012 with verified emissions in the same period. The lower than anticipated level of emissions reflects the severity of the economic slowdown. As mentioned above this surplus remains with the firms to whom the initial free allocation was made.

EMISSIONS BY TRADED SECTOR ¹⁰

	Allocations	Verified Emissions
Mt CO ₂		
2008	19.97	20.38
2009	20.03	17.22
2010	20.96	17.37
2011	21.58	15.77
2012	21.75	16.90

8 It should be noted that the allowances in the New Entrants Reserve (NER) are EUAs, which are created out of a State's initial allowances of AAUs. For more detail on the different types of carbon units please refer to the Glossary of Terms.

9 Footnote to table 1 http://www.epa.ie/pubs/reports/air/airemissions/GHG_1990-2012_April_2014.pdf

10 Source: EPA – Ireland's Greenhouse Gas Emission in 2012 Table 1 footnote. http://www.epa.ie/pubs/reports/air/airemissions/GHG_1990-2012_April_2014.pdf

IRELAND'S STRATEGY FOR COMPLIANCE WITH THE KYOTO PROTOCOL

Ireland's strategy for achieving its Kyoto target for reducing greenhouse gas emissions was set out in the National Climate Change Strategy 2007-2012, published in April 2007.¹¹

Ireland's target under the Kyoto Protocol was to limit average annual emissions in the period 2008–2012 to 13 per cent above the baseline estimate of 55.60 million tonnes of CO₂ equivalent.¹² Accordingly Ireland's total emissions limit for the period 2008–2012 was 314.180 million tonnes, or an average of 62.836 million tonnes per year. At the time it was estimated that measures already taken would reduce emissions by some 8 million tonnes a year. However, in the absence of additional policies and measures, it was projected that Ireland would exceed its Kyoto obligations by an average of 8.4 million tonnes of emissions each year.

The following table summarises the measures for achieving Ireland's Kyoto target outlined in the National Climate Change Strategy 2007-2012:¹³

Annual Average, 2008-2012 (Million Tonnes of CO ₂ equivalent)	
Kyoto Target	62.8
Projected Greenhouse Gas Emissions after effects of measures already taken.	71.2
Distance to Kyoto Target	8.4
Additional measures to achieve Kyoto Target	
(1) Emissions abatement by:	
(a) EU Emissions Trading Scheme participants	0.9
(b) Non-traded sector of economy (including additional measures)	1.9
(2) Purchase of allowances and credits (or other reductions) by:	
(a) EU Emissions Trading Scheme participants	2.0
(b) Government	3.6
	8.4

The National Treasury Management Agency was designated the purchasing agent for the State in the acquisition of the required credits of 3.6 million tonnes of greenhouse gas emissions on average in respect of each year of the 2008–2012 period, purchased under the Flexible Mechanisms¹⁴ of the Kyoto Protocol.¹⁵ The total credits required in the period were estimated at 18 million tonnes.

With the change in Ireland's economic circumstance the Environmental Protection Agency was asked in 2009 to apply a sensitivity analysis which might better reflect the changed economic situation. This analysis, published in March 2009¹⁶, concluded that, "applying the Economic Shock Analysis to the with additional measures scenario, (which is the most ambitious reduction scenario), the Government's purchasing requirement (or need for additional domestic policies and measures) would reduce to 1.3-1.8 Mtonnes of CO_{2e} per annum for each of the five years 2008-2012 as compared to the 3.6 Mtonnes per annum anticipated in the National Climate Change Strategy". In light of the changing estimates of the Government's need to purchase carbon credits, it was decided in February 2009 to cease purchases of carbon credits for the time being.

The April 2014 submission to the United Nations by the Department of the Environment, Community and Local Government stated "the projections presented indicate that the distance to target for the Kyoto Protocol will be 0.2 -0.7Mt CO₂ equivalent. Ireland is, therefore, on track to meet its commitment under the Kyoto Protocol, and it is likely that there will be a very low requirement for the use of credits to ensure compliance with the agreed limit.¹⁷ In Ireland's Greenhouse Gas Emission Projections 2012-2030¹⁸ published on 25th April 2014 the EPA estimated the distance to target for the Kyoto protocol will be 0.2 – 0.7 Mt CO_{2e}."

11 For details, see the full report published by the Department of the Environment, Community and Local Government available on the web at <http://www.environ.ie/en/Environment/Atmosphere/ClimateChange/NationalClimateChangeStrategy/PublicationsDocuments/FileDownload,1861,en.pdf>

12 The baseline estimate for Ireland is calculated as the sum of carbon dioxide, methane and nitrous oxide emissions in 1990 and the contribution from fluorinated gases in 1995.[Source: Environmental Protection Agency Press Release, 15 January 2008].

13 Source: *Ireland's National Allocation Plan for Emissions Trading 2008-2012*, Environmental Protection Agency, 4 March 2008.

14 For details on the Flexible Mechanisms which give rise to Carbon Units which can be purchased for compliance with a country's obligations please see Appendix 3 and previous Carbon Reports.

15 See Annex 3 of the *National Climate Change Strategy 2007-2012* in Appendix 2

16 See: <http://www.epa.ie/news/pr/2009/march/name,25767,en.html>

17 See: Ireland's Sixth National Communication Under The United Nations Framework Convention On Climate Change page 11 source: http://unfccc.int/national_reports/annex_i_natcom/submitted_natcom/items/7742.php

18 See: http://www.epa.ie/pubs/reports/air/airemissions/GHG_1990-2012_April_2014.pdf

IRELAND'S GREENHOUSE GAS EMISSIONS 2008 - 2012¹⁹

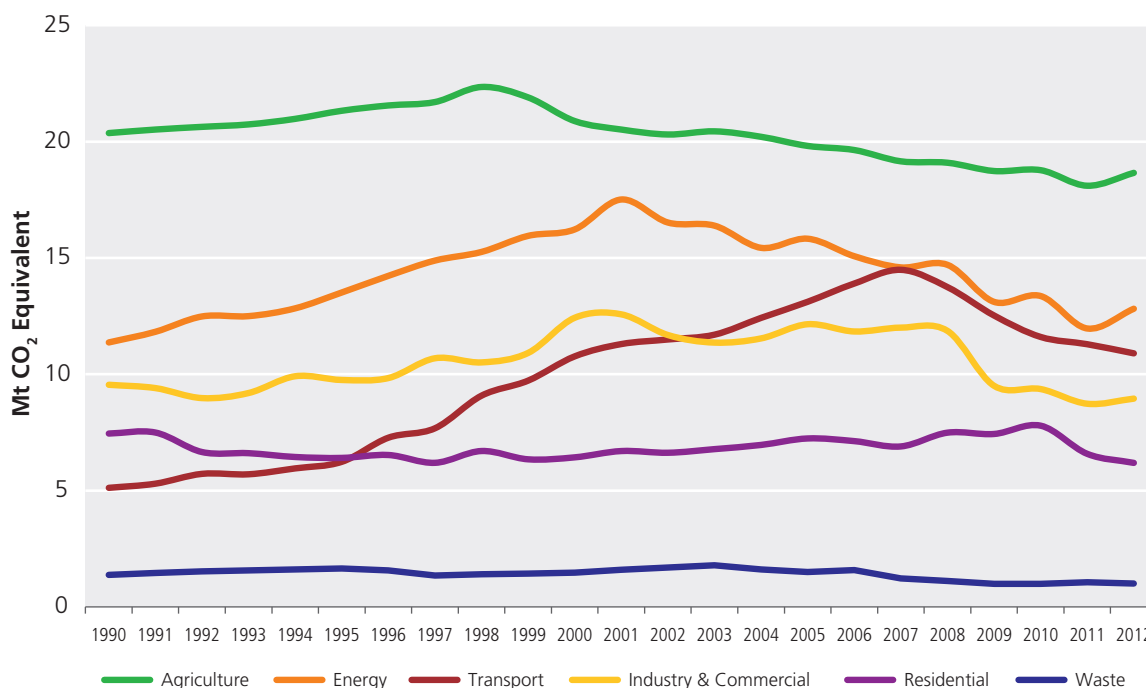
Total greenhouse gas emissions (GHG) in 2012 are estimated to be 58.53 Mt CO_{2e}, which is 1.4% (0.78 Mt CO_{2e}) higher than the level of emissions in 2011²⁰.

The sources of greenhouse gas emissions in Ireland in 2012 were:

Agriculture	31.9%
Energy	21.9%
Transport	18.6%
Industrial and Commercial	15.3%
Residential	10.6%
Waste	1.7%

Following the decline in emissions in 2011 compared to 2010, the increase in 2012 reflects the recovering economy with emissions growing in all sectors other than Residential and Transport. Energy (principally electricity generation) increased by 7.1% (0.85 Mt CO_{2e}) in 2012. Agriculture also saw a significant emission, the first significant increase since 1999. This was largely due to increasing animal numbers which reflect national plans to expand milk production following the removal of the milk quota in 2015. The following chart shows the trends in emissions in each sector since 1990.

TRENDS IN GREENHOUSE GAS EMISSIONS 1990 - 2012²¹



19 Greenhouse gas estimates are subject to constant revision by the EPA in the annual reporting cycle to take account of new methodological guidance, the outcome of national research, revised information on energy use and improved data from other sectors.

20 The Final estimates for 2012 were published by the EPA on the 15th April 2014 see: http://www.epa.ie/pubs/reports/air/airemissions/GHG_1990-2012_April_2014.pdf

21 Source : EPA – Ireland's Greenhouse Gas Emission in 2012 page 5.

Ireland's total national emissions for 2012 are well below Ireland's Kyoto Protocol limit of 62.84 Mt CO_{2e}. However it must be remembered that any surplus among the EU ETS members remains with those members. The Carbon Fund relates to the non-ETS sectors and so the relevant target is the overall target less the allocation of 22.28 Mt

CO_{2e} to EU ETS²² (62.84 – 22.28 = 40.56 Mt CO_{2e}). Ireland's non-ETS emissions in 2011 were 41.68 Mt CO_{2e}, leaving a gap to target of 1.12 mt CO_{2e}²³.

The EPA have made an estimate of the final outcome for Ireland for the initial Kyoto period as outlined in the following table²⁴.

ESTIMATION OF DISTANCE TO KYOTO LIMIT FOR THE FIVE YEAR PERIOD 2008-2012

	MT CO _{2eq}					
	2008	2009	2010	2011	2012	2008-2012
Total National Emissions	68.02	62.31	61.89	57.75	58.53	308.51
Less Verified Emissions for ETS	20.38	17.22	17.36	15.77	16.85	87.58
Total Non-ETS Emissions	47.64	45.09	44.53	41.98	41.68	200.93
Kyoto Limit	62.84	62.84	62.84	62.84	62.84	314.19
Less ETS Allocation	22.28	22.28	22.28	22.28	22.28	111.40
Total Non-ETS Limit	40.56	40.56	40.56	40.56	40.56	202.79
Distance above Kyoto limit after five years of Kyoto Protocol period (excluding forest sinks)	7.08	4.54	3.98	1.42	1.12	18.14
Forest Sinks	-2.72	-3.09	-3.42	-3.38	-3.47	-16.08
Distance above Kyoto limit after five years of Kyoto Protocol period (including forest sinks)	4.36	1.44	0.56	-1.96	-2.35	2.06

When the impact of forest sinks are included the distance to target for Ireland (non-ETS) over the whole period is estimated at 2.06 Mt CO_{2e}.

FUNDING FOR THE PURCHASE OF CARBON CREDITS

Funding for the purchase of carbon credits is provided from the Central Fund to the Carbon Fund. Provision is made in the annual Vote of the Department of the Environment, Community and Local Government to repay the Central Fund.

In the National Development Plan 2007–2013 the Government designated €270 million for the purchase of carbon credits in the Kyoto commitment period 2008–2012. This is in addition to an initial investment of €20 million in 2006.

22 As mentioned above (page 7) there may however be some units returned to the State from the "New Entrants" allocation in the EU ETS.

23 See Table 1 page 7 of the EPA report : Ireland's Greenhouse Gas Emissions in 2012 http://www.epa.ie/pubs/reports/air/airemissions/GHG_1990-2012_April_2014.pdf

24 Source: EPA –Ireland's Greenhouse Gas Emissions in 2012 page 7 Note the figures for ETS allocation are not adjusted for the New Reserve allocation (see page 7)

INVESTMENTS BY IRELAND

The Government undertook investments in three multilateral funds which invest in projects to achieve carbon emissions reductions. The first investment was of €20 million made in December 2006²⁵ in the **Multilateral Carbon Credit Fund (MCCF)**²⁶ of the European Bank for Reconstruction and Development (EBRD). Two further commitments of €10 million and \$12.88 million were made respectively to the **World Bank Carbon Fund for Europe** and the **World Bank BioCarbon Fund** in January 2007. Consistent with its decision to suspend the carbon purchasing programme in February 2009, the Department of the Environment, Community and Local Government has negotiated a reduction in the commitment to both World Bank funds; a reduction from €10m to €5.26m in the case of the Carbon Fund for Europe and a reduction from \$12.88m to \$10.08m in the case of the BioCarbon Fund.

The Multilateral Carbon Credit Fund was established by the EBRD in partnership with the European Investment Bank (EIB) in May 2006. The aim of the fund is “to promote much-needed energy savings projects in the EBRD countries of operation while at the same time helping those countries and corporate companies purchasing carbon credits to meet their emissions reductions targets”.²⁷ Projects are located in up to 30 EBRD countries in Central and Eastern Europe and the Commonwealth of Independent States.²⁸ The full €20 million committed has been paid over to the EBRD. The fund uses both the JI and CDM flexible mechanism established under the Kyoto Protocol.

The Carbon Fund for Europe is jointly managed by the World Bank and the EIB, and was launched in March 2007. This fund, which is directed towards securing investments from EU Member States, acquires greenhouse gas reduction credits on behalf of the participants using the World Bank’s expertise and experience and the EIB’s large project pipeline in developing countries. The five participants in the fund are Ireland, Luxembourg, Portugal, the Flemish Region of Belgium and Statkraft Carbon Invest AS (Norway). Of the €5.26 million committed to this Fund,

€4.1 million has been paid in the period since its launch to 31 December 2013.

The BioCarbon Fund is a World Bank fund which aims to achieve emissions reductions while promoting biodiversity, conservation and poverty alleviation. The Fund aims to:

- a) provide resources for projects which are intended to
 - (i) generate emission reductions; and
 - (ii) demonstrate how land use and forestry activities can create additional benefits which can be measured, monitored and certified, and contribute to the sustainable development of the host countries;
- b) endeavour to effect an equitable sharing between the participants and the host countries of any benefits, including any emissions reductions, arising from the projects; and
- c) disseminate broadly the knowledge gained in the development of the Fund and the implementation of projects.

Ireland is committed to investing US \$10.08 million (€7.43m) in the second tranche of the BioCarbon Fund which commenced operations in March 2007. Projects in the current portfolio are in countries such as Brazil, Chile, China, India, Moldova, and Congo²⁹. Of the €7.43 million committed to this Fund, €5.6 million has been paid to 31 December 2013.

The investments in the three multilateral funds have generated 2,746,897 carbon credits to end 2013.

In 2008 the NTMA initiated its purchase of carbon units. It was decided to purchase CERs as the market in these units was the most developed and transparent. Purchases of 4.355 million carbon units made in 2008 were detailed in the Carbon Fund Report 2008. In early 2009 further purchases of 0.9 million carbon units were made. In the light of the slowdown in the Irish economy and the subsequent revised estimate of Ireland’s need to purchase


25 This was before the establishment of the Irish Carbon Fund by the Carbon Fund Act 2007. The investment is administered by the Department of the Environment Community and Local Government.

26 The European Investment Bank is partnering the EBRD in managing the MCCF; Ireland’s agreement is only with the EBRD.

27 Quotation from EBRD President Jean Lemierre at the launch of the Fund, 22 May 2006.

28 The Commonwealth of Independent States is the international organisation consisting of eleven former Soviet republics: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Ukraine and Uzbekistan.

29 For details see <http://wbcarbonfinance.org/Router.cfm?Page=BioCF&FID=9708&ItemID=9708&ft=ProjectsT2>



carbon credits it was decided to cease purchase of credits for the time being. As a consequence there have been no purchases of carbon credits since early February 2009. In all, there have been 21 trades in which Ireland contracted to purchase 5.255 million CERs at an average price of €14.03 (excluding VAT).

Following a decision by the Department of the Environment, Community and Local Government in February 2009, the carbon purchasing programme remains suspended. While the NTMA has made no further trades, the Agency has assisted the Department in processing outstanding payments on the State's investments in the World Bank multilateral funds. The outstanding payments are processed through the Carbon Fund.

Management of the purchased carbon portfolio is a matter for the Department of the Environment, Community and Local Government. The extent to which the units acquired through investment by the State in the multilateral funds and units purchased by the NTMA will be required for compliance in the first commitment period under the Kyoto Protocol (2008-2012) has yet to be finalised. This is expected to be completed during 2015³⁰, following the formal end of commitment period accounting process for the Protocol. Following this, the "true-up" period will begin, during which Ireland will be required to retire the requisite number of units.

Based on greenhouse gas inventory and projection data published by the Environmental Protection Agency to date, it is likely that few, if any, of the units in the portfolio will be required for compliance purposes in the 2008-2012 commitment period. In that event, the priority for the Department of the Environment, Community and Local Government will be to maximise their use for compliance in the post-2012 period.

³⁰ Agreement on a completion date will be discussed at the forthcoming Bonn session of the UNFCCC under the SBI (Subsidiary Body on Implementation) Agenda item 3c.

POST KYOTO - EMISSION REDUCTION TARGETS TO 2020

During 2013 efforts continued to find agreement on a successor to the Kyoto Protocol. Following Conference of Parties (COP)18 in Doha, Qatar in December 2012 the "Doha Amendment to the Kyoto Protocol" was adopted. The amendment includes new commitments for the second period (2013-2020) and a revised list of Greenhouse Gases to be reported. Parties committed to reduce GHG emissions by at least 18 percent below 1990 levels in the eight-year period from 2013 to 2020; however, the composition of Parties in the second commitment period is different from the first. The amendment was subject to acceptance by Parties to the Kyoto Protocol and following Afghanistan becoming a Party to the Kyoto Protocol, the total number of instruments of acceptance required for the entry into force of the amendment is 144. To date there have not been sufficient instruments of acceptance and so the Amendment has not yet come into force. Iceland³¹ along with the EU and its Member States will deposit its instruments of acceptance collectively once all Member States have completed their national ratification procedures.

COP19 took place in Warsaw, Poland in November 2013, with some progress being made towards agreeing a universal climate agreement in 2015, to be implemented from 2020.

The EU had already demonstrated strong leadership in the global response to climate change by adopting a unilateral 2020 greenhouse gas mitigation target as part of a basket of legislative measures, known as the Climate and Energy Package. As part of the package, which was adopted in December 2008, binding targets were set for Ireland to reduce non-ETS³² greenhouse gas emissions by 20% relative to 2005 levels in the period to 2020.

In March 2013 the European Parliament approved two new laws to improve EU rules on monitoring and reporting of greenhouse gas emissions, including those from forestry and agriculture. This establishes common rules for accounting for Greenhouse Gas (GHG) emissions and removals of carbon from the atmosphere resulting from activities related to land use, land-use change and forestry (LULUCF). The decision represents a first step towards incorporating the forestry and agriculture sectors, the last major sectors without common EU-wide rules on GHG, into EU climate policy.

The EPA in their publication "Ireland's Greenhouse Gas Emission Projections 2013-2030"³³ estimate that Ireland will exceed its binding annual limit in 2016-2017 and will exceed its obligations over the 2013-2020 period cumulatively by 1.2 – 17.3 Mt CO_{2e}. Two scenarios give rise to these numbers. The "with measures" assumes no additional policy measures beyond those already in place at end 2012. The "with additional measures" that all targets in the Government Policy documents and plans are met. The EPA highlight that "the difficulties associated with meeting these targets should, however, not be underestimated"³⁴

31 Iceland is being joined to the EU bubble for the purposes of compliance with Kyoto Protocol CP2. See footnote 8 to the amended Annex B of the Kyoto Protocol <https://treaties.un.org/doc/Treaties/2012/12/20121217%2011-40%20AM/CN.718.2012.pdf>

32 See page 5 for an explanation of ETS and non-ETS sectors.

33 See: <http://www.epa.ie/pubs/reports/air/airemissions/irelandsghemissions2013-2030.html>

34 Source: Ireland's Greenhouse Gas Emission Projections 2013-2030 Page 3 <http://www.epa.ie/pubs/reports/air/airemissions/irelandsghemissions2013-2030.htm>

RANGE OF ANNUAL COMPLIANCE/NON-COMPLIANCE BASED ON THE WITH MEASURES AND WITHOUT ADDITIONAL MEASURES ³⁵

Mtonnes of CO _{2eq}	2013	2014	2015	2016	2017	2018	2019	2020	Total
	Annual compliance/non-compliance								
Annual Limits	44.8	43.7	42.6	41.6	40.5	39.4	38.3	37.2	
With Measures*	-2.9	-2.2	-0.4	1.2	2.9	4.6	6.2	7.9	17.3
With Additional Measures*	-3.9	-3.3	-1.8	-0.6	0.8	2.1	3.4	4.6	1.2

*A negative sign indicates that emissions are below the annual allowed limit

The key contributors in the non-ETS sectors are projected to be transport and agriculture. Agricultural emissions are expected to grow by 9% and Transport emissions are expected to grow by 15-23% over the period. One should note that the emissions forecasts exclude any benefit from forest sinks in line with EU accounting rules which stipulate that they may not be used for compliance towards 2020 targets³⁶.

The challenging greenhouse gas mitigation agenda which Ireland faces in the period to 2020 and beyond is central to the Programme for the Development of National Climate Policy and Legislation³⁷ announced by the Minister for the Environment, Community and Local

Government in January 2012. This programme recently culminated in the publication of Heads of the Climate Action and Low Carbon Development Bill in tandem with a National Policy Statement outlining the long term vision which the legislation will support. Having regard to the emphasis in the programme on transition to a low-carbon future, it is expected that the outcome will address the issue of using credits generated through the Kyoto Protocol flexible mechanisms to supplement domestic mitigation action. Ireland's Sixth National Communication under the United Nations Framework Convention on Climate Change³⁸ submitted to the United Nations on 7th March 2014 provides considerable detail on the plans to meet the 2020 emissions targets.



35 Source: Ireland's Greenhouse Gas Emission Projections 2013-2030 Table 1 Page 3: <http://www.epa.ie/pubs/reports/air/airemissions/irelandsghemissions2013-2030.html> .

36 Forests absorb CO₂ and therefore increasing forestry reduces the net amount of carbon emitted into the atmosphere. There has been considerable debate however as to the calculation of the offset provided by forestry.

37 See: <http://www.environ.ie/en/Environment/Atmosphere/News/MainBody,29241,en.htm>

38 See: http://unfccc.int/national_reports/annex_i_natcom/submitted_natcom/items/7742.php

APPENDIX 1

ANNEX B COUNTRIES OF THE KYOTO PROTOCOL

Party	Commitment to quantified emissions limitation or emissions reduction, expressed as percentage of emissions in base year 1990
Australia	108
Austria ⁺	92
Belgium ⁺	92
Bulgaria [*]	92
Canada (not applicable)	94
Croatia [*]	95
Czech Republic [*]	92
Denmark ⁺	92
Estonia [*]	92
European Union (EU-15)	92
Finland ⁺	92
France ⁺	92
Germany ⁺	92
Greece ⁺	92
Hungary [*]	94
Iceland	110
Ireland ⁺	92
Italy ⁺	92
Japan	94
Latvia [*]	92
Liechtenstein	92
Lithuania [*]	92
Luxembourg ⁺	92
Monaco	92
Netherlands ⁺	92
New Zealand	100
Norway	101
Poland [*]	94
Portugal ⁺	92
Romania [*]	92
Russian Federation [*]	100
Slovakia [*]	92
Slovenia [*]	92
Spain ⁺	92
Sweden ⁺	92
Switzerland	92
Ukraine [*]	100
United Kingdom ⁺	92
United States of America (not applicable)	93

^{*}Countries, mainly in the former Soviet bloc, that are undergoing the process of transition to a market economy.

⁺ See page 7 for details of the burden sharing agreement by EU-15 countries.

APPENDIX 2

Annex 3 of National Climate Change Strategy 2007-2012: Published by the Department of the Environment, Heritage and Local Government (April 2007)

ANNEX 3 – NATIONAL POLICY FOR STATE PURCHASE OF KYOTO UNITS

NATIONAL POLICY FRAMEWORK FOR THE PURCHASE OF KYOTO UNITS BY THE STATE FOR THE PURPOSE OF COMPLIANCE WITH THE KYOTO PROTOCOL IN THE COMMITMENT PERIOD 2008-2012

INTRODUCTION

This document sets out the institutional arrangements and policy context within which Ireland will purchase Kyoto Units³⁹ sufficient to enable it to meet its greenhouse gas emissions limitation target for the purposes of the Kyoto Protocol in the commitment period 2008-2012.

BACKGROUND

For the purposes of the Kyoto Protocol, Ireland is committed to limiting average annual greenhouse gas emissions in the period 2008-2012 to 13% above 1990 levels.

Parties to the Kyoto Protocol may achieve their individual targets through domestic actions and use of Flexible Mechanisms provided for in the Protocol. The Protocol requires that use of the Flexible Mechanisms be supplemental to domestic actions.

The National Climate Change Strategy 2007-2012 provides the national policy framework for addressing greenhouse gas emission reductions and ensuring that Ireland meets its target for the purpose of the Kyoto Protocol.

The Government has decided that it will use the Kyoto Protocol Flexible Mechanisms to purchase up to 3.607 million Kyoto Units in respect of each year of the 2008-2012 period. This requirement will be revised as necessary in light of future projections and the impact of any additional measures to reduce greenhouse gas emissions.

KYOTO PROTOCOL FLEXIBLE MECHANISMS

A key component of the Kyoto Protocol was the introduction of three Flexible Mechanisms to reduce the overall costs of achieving emission reductions for those Parties with emission reduction or limitation targets. These mechanisms - Joint Implementation, the Clean Development Mechanism and International Emissions Trading – are described in more detail below. The mechanisms enable Parties to purchase Kyoto Units from other Parties or to invest in cost-effective opportunities to reduce emissions or increase sequestration through projects in other countries. While the cost of reducing emissions varies considerably between projects and between countries, the effect for the atmosphere of limiting emissions is the same irrespective of where the action occurs.

Joint Implementation (JI): provided for under Article 6 of the Protocol, enables Parties with reduction commitments or private investors to implement projects that reduce emissions in other Parties with reduction commitments, in return for credits. Credits generated using the JI mechanism can be used by the investing Party or private entity (particularly within the EU Emissions Trading Scheme) for compliance purposes. The tradable unit under the JI mechanism is an Emissions Reductions Unit (ERU).

Clean Development Mechanism (CDM): provided for under Article 12 of the Protocol, enables Parties with targets to participate in projects that reduce emissions or contribute to sequestration in those Parties that do not have targets under the Protocol. The mechanism is aimed primarily at developing countries and is intended to assist them in achieving sustainable development through, for example, access to cleaner or more energy efficient technologies. Credits generated using the CDM mechanism can be used by the investing Party or private entity for compliance purposes. The tradable unit under the CDM mechanism is a Certified Emissions Reduction (CER).

³⁹ A credit or allowance, equivalent to one metric tonne of carbon dioxide, issued pursuant to the Kyoto Protocol and the decisions adopted pursuant to the United Nations Framework Convention on Climate Change and to the Protocol. A credit is equivalent to one tonne of carbon dioxide that has already been removed. An allowance refers to a right to emit the equivalent of one tonne of carbon dioxide at some point in the future.

APPENDIX 2 (CONTINUED)

International Emissions Trading: provided for under Article 17 of the Kyoto Protocol,⁴⁰ enables Parties that have a greenhouse gas emissions limitation or reduction target under the Protocol to acquire Kyoto Units from those Parties that have reduced their emissions beyond their target under the Protocol. The tradable unit under emissions trading is an Assigned Amount Unit (AAU).

NATIONAL FOCAL POINT FOR JI AND NATIONAL AUTHORITY FOR CDM

A requirement of Parties to the Kyoto Protocol is the designation of a Focal Point and a National Authority for the purpose of the JI and CDM mechanisms respectively. Under the Kyoto Protocol (Flexible Mechanisms) Regulations 2006 (S.I. 244 of 2006), the Minister for the Environment, Heritage and Local Government has designated the Environmental Protection Agency as both the Focal Point and National Authority in Ireland. The role of the Agency will be to approve participation by private or public entities in JI or CDM project activities. The Agency will publish guidelines setting out its approval procedures for participation by Irish entities in JI and CDM projects. Decisions made by the Agency on individual proposals to participate in JI or CDM projects shall be final. Project approval must also be sought in the intended host country.

ESTABLISHMENT OF REGISTRY UNDER THE KYOTO PROTOCOL

In accordance with decisions adopted by Parties to the Kyoto Protocol, the 2006 Regulations (S.I. 244 of 2006) provide for the establishment of a national registry and the designation of the Environmental Protection Agency as the national registry administrator. The function of the national registry is to ensure accurate accounting of the issuance, holding, transfer, acquisition, cancellation and retirement of Kyoto Units.

NATIONAL PURCHASING AGENT

The National Treasury Management Agency is the designated purchasing agent for the State and will administer and manage purchases of Kyoto Units on behalf of the Government. A dedicated Carbon Fund has been established for this purpose.

The role of the Agency as purchasing agent is established on a statutory footing under the Carbon Fund Act 2007. The Act provides for the purchasing agent to perform all functions associated with the management of the Carbon Fund, including appropriate accounting for expenditure having regard to public financial procedures, subject to guidelines and/or direction from the Minister for the Environment, Heritage and Local Government.

FUNDING OF THE PURCHASE OF KYOTO UNITS

Funding for the purchase of Kyoto Units will be provided from the Central Fund to the Carbon Fund, also established under the 2007 Act. In the course of the annual estimates process, provision will be made in the Vote of the Department of the Environment, Heritage and Local Government to repay the Central Fund.


The Government has designated €270 million for investment in the Flexible Mechanisms under the National Development Plan 2007-2013. This is in addition to an initial investment of €20m in 2006.

FRAMEWORK FOR THE PURCHASE OF KYOTO UNITS

The National Treasury Management Agency shall purchase Kyoto Units on behalf of the State. All purchases shall be made in accordance with the following objectives:

- that they contribute to the ultimate objective of the United Nations Framework Convention on Climate Change, i.e. stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system;
- that risk is minimised, particularly in relation to the timely delivery of credits; and
- that they represent good value for money.

⁴⁰ Emissions trading under Article 17 of the Kyoto Protocol are distinct from the EU Emissions Trading Scheme. Operators in the EU Scheme may, however, use credits from the JI or CDM mechanisms for compliance with their obligations up to a percentage of their allocation, which is to be specified in the National Allocation Plan for the Member State in question.



The National Treasury Management Agency may use the following mechanisms to purchase Kyoto Units:

- direct purchase of Kyoto Units from other Kyoto Protocol Annex B Parties;
- direct investment in joint implementation and clean development mechanism project activities;
- investment in managed funds; and
- direct market purchases of Kyoto Units;

or a combination of some or all of these, subject to ensuring that, in accordance with decisions adopted by the Parties to the Kyoto Protocol:

- any surplus Kyoto Units held by the State at the end of the 2008-2012 commitment period can be banked and used in a subsequent commitment period of the Kyoto Protocol or any successor treaty; and
- Ireland does not use emissions reduction units or certified emission reductions generated from nuclear facilities, for the purpose of meeting its Kyoto Protocol commitments.

The Minister for the Environment, Heritage and Local Government may, having regard to the objectives set out

above, enter into bilateral agreements for the purpose of acquiring Kyoto Units pursuant to Article 17 of the Protocol. The Minister may direct the National Treasury Management Agency to purchase Kyoto Units that may become available on foot of any such agreements.

Subject to further direction from the Minister for the Environment, Heritage and Local Government, the Agency may sell Kyoto Units if this is necessary to ensure compliance with decisions adopted pursuant to the Kyoto Protocol for the accounting of assigned amounts under Article 7, paragraph 4 of the Protocol.

All Kyoto Units purchased by the National Treasury Management Agency shall be registered in the national registry managed by the Environmental Protection Agency. Kyoto Units entered into the national registry will be accounted for by the Environmental Protection Agency to ensure compliance with Ireland's commitments for the purposes of the Kyoto Protocol.

This policy framework constitutes the initial direction from the Minister for the Environment, Heritage and Local Government to the National Treasury Management Agency.

April 2007



APPENDIX 3

FLEXIBLE MECHANISMS

The Flexible Mechanisms are an integral part of the Kyoto Protocol and are based on the fact that emissions reductions have the same environmental benefit irrespective of where they are achieved. Therefore, countries can achieve their targets by contributing to or paying for the reduction in carbon emissions in other countries. The mechanisms help identify the lowest cost opportunities for reducing emissions and so help achieve the overall target in the most economically efficient fashion. They also promote the transfer of the latest technology to developing countries.

The Flexible Mechanisms are:

- (1) the Clean Development Mechanism (CDM) through which credits earned by sponsoring emissions reducing projects in developing countries may be used to meet the sponsors' Kyoto obligations in their home countries. These credits are Certified Emission Reductions (CERs);
- (2) the Joint Implementation (JI) Mechanism, under which an Annex B country implements a project in another Annex B country.⁴¹ The credits thereby earned are Emissions Reductions Units (ERUs); and
- (3) International Emissions Trading whereby countries may acquire carbon credits from other countries whose emissions are below their target under the Protocol. The tradeable unit is an Assigned Amount Unit (AAU). AAUs are the units allocated to each Government under the Kyoto Protocol representing the total allowed level of emissions for a country. European Union Allowances (EUAs) are emissions allowances allocated to the installations which participate in the EU Emissions Trading Scheme and constitute part of the overall allocation of AAUs for each of the EU-15 countries.

CERs, ERUs and AAUs are each equivalent to one tonne of carbon dioxide emissions and may be surrendered in fulfilment of obligations under the Kyoto Protocol. These all qualify as Kyoto Units for the purpose of the Carbon Fund Act 2007. Details on the markets in Flexible Mechanisms can be found in the Carbon Fund Report 2012.

⁴¹ See Footnote 3 and Appendix 1 for details on Annex B countries.

GLOSSARY OF TERMS

AAUs	see Assigned Amount Units.
Additionality	An important concept under the Kyoto Protocol. Certified units will only be issued from JI and CDM projects where emission reductions are “additional to those that otherwise would occur”.
Annex B Countries	Countries listed in Annex B of the Kyoto Protocol. Annex B countries have quantified emission limitation or reduction commitments (see Appendix 1).
Assigned Amount Units (AAUs)	These are the units allocated to each Annex B country representing the total allowed level of emissions for a country under the Kyoto Protocol.
Burden Sharing Agreement	The agreement by the EU-15 to collectively meet their obligations under the Kyoto Protocol using the “bubble” allowed in Article 4 of the Protocol. Under the terms of the burden sharing agreement, each of the Member States has a specific target for carbon emissions.
Bubble	Collective scheme for countries allowed under the Kyoto Protocol. See Burden Sharing Agreement.
CDM	See Clean Development Mechanism.
CDM Executive Board (CDM EB)	The CDM EB registers validated project activities as CDM projects, issues Certified Emission Reductions to relevant project participants and manages a series of technical panels and working group meetings. It reports to the Conference of Parties to the Kyoto Protocol.
CERs	See Certified Emission Reductions.
Certified Emission Reductions (CERs)	Carbon credits produced through the Clean Development Mechanism.
Clean Development Mechanism (CDM)	One of the Flexible Mechanisms allowed under the Kyoto Protocol. The Clean Development Mechanism generates carbon credits by sponsoring greenhouse gas reducing projects in developing countries.
CO₂ equivalents (CO_{2e})	Where gases other than CO ₂ are referred to, for comparison purposes these are converted to their equivalence in Global Warming Potential (GWP) to CO ₂ .
Conference of the Parties (COP)	The COP is the supreme body of the United Nations Framework Convention on Climate Change (UNFCCC) and meets annually. The Marrakesh Accords were the result of COP7. The most recent conference, i.e. COP19 took place in Warsaw, Poland in November 2013
COP	See Conference of the Parties.
Emission Reduction Units (ERUs)	Carbon credits produced through the Joint Implementation Mechanism.
Emissions Units	All emissions units under the Kyoto Protocol are equivalent to one tonne of Carbon Dioxide emitted.
Emissions trading	In the context of the EU Emissions Trading Scheme or the Flexible Mechanisms of the Kyoto Protocol, this refers to the buying and selling of allowances to emit a defined quantity of greenhouse gases or credits that represent a quantity of greenhouse gas already reduced.
ERU	See Emission Reduction Units.

GLOSSARY OF TERMS (CONTINUED)

EU Emissions Trading Scheme	“Cap and Trade” scheme within the EU-15 for the major polluters.
EU ETS	See EU Emissions Trading Scheme.
EUAs	See European Union Allowances.
European Union Allowances (EUAs)	Carbon credits allocated to companies in the EU ETS. These credits come from a country’s AAUs.
Flexible Mechanisms	The Flexible Mechanisms provided under the Kyoto Protocol, i.e. International Emissions Trading, Joint Implementation and the Clean Development Mechanism.
Global Warming Potential (GWP)	To compare the different greenhouse gases, emissions are calculated over a normalised time horizon in order to give a measure of their relative heating effect in the atmosphere. A 100 year time horizon is generally used. CO ₂ is the basic unit.
JI	See Joint Implementation.
JISC	See Joint Implementation Supervisory Committee.
Joint Implementation (JI)	A flexible mechanism for the transfer of emissions permits from one Annex B country to another. JI generates credits on the basis of emission reduction projects leading to quantifiable emission reductions.
Joint Implementation Supervisory Committee (JISC)	This body supervises the verification of ERUs generated by JI projects.
Kyoto Protocol	The Protocol to the Framework Convention on Climate Change which was agreed in Kyoto, Japan in December 1997 and came into force on 16 February 2005. It specifies emission obligations for Annex B countries and defines the three Kyoto Flexible Mechanisms: JI, CDM, and International Emissions Trading.
Kyoto Units	A unit of emissions equivalent to one tonne of CO ₂ emitted.
Marrakesh Accords	These Accords include the detailed modalities and procedures of the international climate change policy regime and cover significant principles of technology transfer, accounting, Flexible Mechanisms implementation etc.
UN Framework Convention on Climate Change (UNFCCC)	The UNFCCC was established in 1992 at the Rio de Janeiro Earth Summit. It is the overall framework guiding the international climate negotiations. Its main objective is the “stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic (man-made) interference with the climate system”.



FINANCIAL STATEMENTS OF THE CARBON FUND

FOR THE YEAR ENDED 31 DECEMBER 2013

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STATEMENT OF AGENCY'S RESPONSIBILITIES

The National Treasury Management Agency ("the Agency") is required by the Carbon Fund Act 2007 to prepare financial statements in respect of the operations of the Carbon Fund for each financial year.

In preparing those statements, the Agency:

- selects suitable accounting policies and then applies them consistently;
- makes judgements and estimates that are reasonable and prudent;
- prepares the financial statements on the going concern basis unless it is inappropriate to do so;
- discloses and explains any material departure from applicable accounting standards.

The Agency is responsible for keeping in such form as may be approved by the Minister for the Environment, Community and Local Government with the consent of the Minister for Finance, all proper and usual accounts in relation to the performance by it of the functions delegated or granted to it under the Carbon Fund Act 2007. The Agency shall whenever requested to do so by the Minister for the Environment, Community and Local Government, give to him such accounts and such information in relation to such accounts as he may specify.

The Agency is also responsible for safeguarding assets under its control and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.



John C. Corrigan
Chief Executive

24 June 2014

STATEMENT ON INTERNAL FINANCIAL CONTROL

RESPONSIBILITY FOR THE SYSTEM OF INTERNAL FINANCIAL CONTROL

The National Treasury Management Agency acknowledges its responsibility for ensuring that an effective system of internal financial control is maintained in relation to the operation of the Carbon Fund ("the Fund").

The National Treasury Management Agency ("the Manager") is the Manager of the Fund. The Manager implements the systems of internal financial control for the Fund.

The system can only provide reasonable and not absolute assurance that assets are safeguarded, transactions authorised and properly recorded, and that material errors or irregularities are either prevented or would be detected in a timely manner.

KEY CONTROL PROCEDURES

The Manager has taken steps to ensure an appropriate control environment by:

- clearly defining management responsibilities;
- establishing procedures for reporting significant control failures and ensuring appropriate corrective action.

The Manager has established processes to identify and evaluate business risks by:

- identifying the nature, extent and financial implication of risks facing the organisation;
- assessing the likelihood of identified risks occurring;
- assessing the organisation's ability to manage and mitigate the risks that do occur;
- assessing the costs of operating particular controls relative to the benefit obtained.

The system of internal financial control is based on a framework of regular management information and administrative procedures including segregation of duties, and a system of delegation and accountability.

The Manager has internal audit functions, which operate in accordance with the Code of Practice for the Governance of State Bodies. The work of internal audit is informed by analysis of the risk to which the Fund is exposed, and annual internal audit plans are based on this analysis. The analysis of risk and the internal audit plans are endorsed by the Chief Executive and Directors and approved by the National Treasury Management Agency Audit Committee.

The Manager's monitoring and review of the effectiveness of the system of internal financial control is informed by the work of the internal audit functions, the executive managers within the National Treasury Management Agency who have responsibility for the development and maintenance of the financial control framework, and comments made by the Comptroller and Auditor General in his management letter or other reports.

ANNUAL REVIEW OF CONTROLS

I confirm that, in the year ended 31 December 2013, I, as Chief Executive, having taken advice from the Manager's Audit Committee, conducted a review of the effectiveness of the system of internal financial control.



John C. Corrigan
Chief Executive

24 June 2014

COMPTROLLER AND AUDITOR GENERAL REPORT FOR PRESENTATION TO THE HOUSES OF THE OIREACHTAS

CARBON FUND

I have audited the financial statements of the Carbon Fund for the year ended 31 December 2013 under the Carbon Fund Act 2007. The financial statements, which have been prepared under the accounting policies set out therein, comprise the accounting policies, the fund account, the net assets statement and the related notes. The financial statements have been prepared in the form prescribed under section 5 of the Act, and in accordance with generally accepted accounting practice in Ireland.

RESPONSIBILITIES OF NATIONAL TREASURY MANAGEMENT AGENCY (THE AGENCY)

The Agency is responsible for the preparation of the financial statements, for ensuring that they give a true and fair view of the state of the Fund's affairs and of its income and expenditure, and for ensuring the regularity of transactions.

RESPONSIBILITIES OF THE COMPTROLLER AND AUDITOR GENERAL

My responsibility is to audit the financial statements and report on them in accordance with applicable law.

My audit is conducted by reference to the special considerations which attach to State bodies in relation to their management and operation.

My audit is carried out in accordance with the International Standards on Auditing (UK and Ireland) and in compliance with the Auditing Practices Board's Ethical Standards for Auditors.

SCOPE OF AUDIT OF THE FINANCIAL STATEMENTS

An audit involves obtaining evidence about the amounts and disclosures in the financial statements, sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of

- whether the accounting policies are appropriate to the Fund's circumstances, and have been consistently applied and adequately disclosed
- the reasonableness of significant accounting estimates made in the preparation of the financial statements, and
- the overall presentation of the financial statements.

I also seek to obtain evidence about the regularity of financial transactions in the course of audit.

In addition, I read the annual report on the Fund to identify material inconsistencies with the audited financial statements. If I become aware of any apparent material misstatements or inconsistencies, I consider the implications for my report.

OPINION ON THE FINANCIAL STATEMENTS

In my opinion, the financial statements, which have been properly prepared in accordance with generally accepted accounting practice in Ireland, give a true and fair view of the state of the Fund's affairs at 31 December 2013 and of its income and expenditure for 2013.

In my opinion, proper books of account have been kept by the Agency. The financial statements are in agreement with the books of account.

MATTERS ON WHICH I REPORT BY EXCEPTION

I report by exception if

- I have not received all the information and explanations I required for my audit, or
- my audit noted any material instance where public money has not been applied for the purposes intended or where the transactions did not conform to the authorities governing them, or
- the information in the annual report on the Fund is not consistent with the related financial statements for the Fund, or
- the statement on internal financial control does not reflect the Agency's compliance with the Code of Practice for the Governance of State Bodies in relation to the Fund, or
- I find there are other material matters relating to the manner in which public business has been conducted.

I have nothing to report in regard to those matters upon which reporting is by exception.



Seamus McCarthy

Comptroller and Auditor General
27 June 2014

ACCOUNTING POLICIES

The Carbon Fund was established under the Carbon Fund Act 2007 for the acquisition of Kyoto Units⁴² and any other such instruments or assets on behalf of the State to meet international climate change obligations under the 1992 United Nations Framework Convention on Climate Change and the 1997 Kyoto Protocol to that Convention. The Agency has been designated as the Purchasing Agent on behalf of the State and administers and manages purchases of Kyoto Units.

The Agency may use the following mechanisms to purchase Kyoto Units:

- direct purchase of Kyoto Units from other Kyoto Protocol parties;
- direct investment in Joint Implementation and Clean Development Mechanism projects;
- investment in managed funds;
- direct market purchases of Kyoto Units.

The significant accounting policies adopted in respect of the Carbon Fund are as follows:

BASIS OF PREPARATION

The financial statements have been prepared in accordance with the Carbon Fund Act 2007 in a format approved by the Minister for the Environment, Community and Local Government, with the consent of the Minister for Finance.

The financial statements summarise the transactions and net assets of the Carbon Fund.

REPORTING PERIOD

The reporting period is from 1 January 2013 to 31 December 2013. The comparative reporting period for 2012 is from 1 January 2012 to 31 December 2012.

REPORTING CURRENCY

The reporting currency is the euro, which is denoted by the symbol €.

CARBON FUND ASSETS

Carbon Fund assets represent investments in the following:

Direct Holdings

Kyoto Units purchased are recorded on delivery at cost of acquisition. The cost of acquisition includes Value Added Tax paid and payable in respect of the purchase of the Kyoto Units.

Indirect Kyoto Units

Investments in indirect units are made in managed funds. Investments in these funds are recorded at investment cost. Such investments relate to carbon reducing projects that may or may not produce Kyoto Units. The total number of units, if any, will not be known until a future date when the projects complete.

The Minister for the Environment, Community and Local Government invested €20 million in 2006 in a Multilateral Carbon Credit Fund established by the European Bank for Reconstruction and Development. That investment does not form part of the fund but the units produced by projects undertaken are included herein as explained in Note 3(d).

GAINS AND LOSSES ON CARBON FUND ASSETS

The Kyoto Units are acquired with the intention to meet Ireland's obligation under the Kyoto Protocol, in the commitment period 2008 to 2012. The determination as to whether any or all of the purchased units will be surrendered for that period will be agreed in accordance with the Protocol's formal end of commitment period accounting process. Subject to certain conditions, unused credits may be carried forward to meet Ireland's 2020 commitments. No realised gains or losses will arise as a consequence of the surrender of these assets.

⁴² A Kyoto Unit is defined in the Carbon Fund Act 2007 as "a unit, equivalent to one metric tonne of carbon dioxide, issued pursuant to the Kyoto Protocol and the decisions adopted pursuant to the Convention and the Kyoto Protocol". Kyoto Units are generally referred to as carbon credits. The legislation allows for the disposal of Kyoto Units only under very specific conditions i.e. "with the consent of the Minister (for the Environment, Community and Local Government) and the Minister for Finance and on such terms as they may specify".

ACCOUNTING POLICIES (CONTINUED)

FUND ACCOUNT

The Fund Account records the accumulated income received or receivable from the Department of the Environment, Community and Local Government. Investments are funded initially through repayable advances from the Central Fund under section 3 of the Carbon Fund Act 2007 pending receipt of this income.

FOREIGN CURRENCIES

All transactions in foreign currencies are translated into euro at the rates of exchange prevailing at the date of such transactions. Unfunded commitments to non-euro investments are translated into euro using the foreign exchange rates prevailing at the year end date.

TAXATION

The income and profits of the Carbon Fund are exempt from Irish corporation tax. The purchases of Kyoto Units by the Carbon Fund are liable to Value Added Tax as such transactions are regarded as a supply of a service, as defined by section 5(1) Value Added Tax Act 1972. VAT incurred is included in the cost of acquisition of the Carbon Fund assets.

FUND ACCOUNT

	Notes	Year Ended 31 December 2013 €	Year Ended 31 December 2012 €
Income	1	-	371,237
Increase in Fund during the year		-	371,237
Net Assets of Fund at start of year		99,284,138	98,912,901
Net Assets of Fund at end of year		99,284,138	99,284,138

The accounting policies and notes 1 to 7 form part of these financial statements.



John C. Corrigan
Chief Executive

24 June 2014

NET ASSETS STATEMENT

	Notes	31 December 2013 €	31 December 2012 €
Carbon Fund Assets	3	99,284,138	99,284,138
Current Assets	5	-	371,237
Cash at Bank		-	-
Current Liabilities	6	-	(371,237)
Net Assets of Fund		<u>99,284,138</u>	<u>99,284,138</u>

The accounting policies and notes 1 to 7 form part of these financial statements.



John C. Corrigan
Chief Executive

24 June 2014

NOTES TO THE ACCOUNTS

1. Income

	Year Ended 31 December 2013 €	Year Ended 31 December 2012 €
Income from the Department of the Environment, Community and Local Government	-	371,237

Income comprises the funding to be reimbursed to the Carbon Fund from the Department of the Environment, Community and Local Government to meet expenditure incurred during the year.

2. Administration Costs

The administration expenses of the Carbon Fund are all charged to the Agency's Administration Account and are paid out of the Central Fund.

3. Carbon Fund Assets

(a) Summary of Assets	2013 €	2012 €
Direct Holdings	89,573,025	89,573,025
Indirect Holdings	9,711,113	9,711,113
	<u>99,284,138</u>	<u>99,284,138</u>
(b) Analysis by Currency of Acquisition	2013 €	2012 €
Euro	93,673,025	93,673,025
US Dollar	5,611,113	5,611,113
	<u>99,284,138</u>	<u>99,284,138</u>
(c) Indirect Holdings:	2013 €	2012 €
World Bank – Carbon Fund for Europe	4,100,000	4,100,000
World Bank – BioCarbon Fund	5,611,113	5,611,113
	<u>9,711,113</u>	<u>9,711,113</u>

NOTES TO THE ACCOUNTS (CONTINUED)

3. Carbon Fund Assets (continued)

(d) Credits Delivered and Held:

The number of carbon credits delivered and held with the Emissions Trading Registry – Ireland at the Environmental Protection Agency at 31 December 2013 is 8,211,828 – 5,255,000 purchased directly and 2,956,828 acquired via indirect holdings, (2012: 7,606,360 - 5,255,000 purchased directly and 2,351,360 acquired via indirect holdings). 2,746,897 (2012: 2,141,429) units of the 8,211,828 (2012: 7,606,360) held at 31 December 2013 relate to credits acquired through investments made by the Department of the Environment, Community and Local Government prior to the establishment of the Carbon Fund.

4. Commitments

Carbon Fund Investments

The NTMA administers payments on behalf of the Minister for the Environment, Community and Local Government in respect of two World Bank funds. Investments in these funds relate to projects which may yield Kyoto Units but the total number of units will not be known until a future date when the projects complete.

At 31 December 2013, the uncalled commitments in respect of these investments amounted to:

	Total Commitment of the State		Paid to date €	Unfunded Commitment €
	Local Currency	Euro equivalent €		
World Bank Fund				
Carbon Fund for Europe	€5.26m	5,263,000	4,100,000	1,163,000
BioCarbon Fund	US\$10.08m	7,294,023	5,611,113	1,682,910
		<u>12,557,023</u>	<u>9,711,113</u>	<u>2,845,910</u>

At 31 December 2012, the uncalled commitments in respect of these investments amounted to:

	Total Commitment of the State		Paid to date €	Unfunded Commitment €
	Local Currency	Euro equivalent €		
World Bank Fund				
Carbon Fund for Europe	€5.26m	5,263,000	4,100,000	1,163,000
BioCarbon Fund	US\$10.08m	7,429,452	5,611,113	1,818,339
		<u>12,692,452</u>	<u>9,711,113</u>	<u>2,981,339</u>

During 2013, there was no call on funds. During 2012, there was a call on payments under the BioCarbon Fund to the value of €371,237. There was no call on funds under the Carbon Fund for Europe.

Consistent with its decision to suspend the carbon purchasing programme in February 2009, the Department of the Environment, Community and Local Government negotiated a reduction in the commitment to both World Bank funds in 2012; a reduction from €10m to €5.26m in the case of the Carbon Fund for Europe and a reduction from \$12.88m to \$10.08m in the case of the BioCarbon fund.

5. Current Assets

	2013 €	2012 €
Department of the Environment, Community and Local Government	-	371,237

The amount owed to the Carbon Fund by the Department of the Environment, Community and Local Government is due under Section 3 (4) of the Carbon Fund Act 2007.

6. Current Liabilities

	2013 €	2012 €
Central Fund	-	371,237

The liability to the Central Fund is in respect of advances made by the Central Fund to the Carbon Fund, and will be repaid to the Central Fund when the Carbon Fund receives funds from the Department of the Environment, Community and Local Government.

7. Related Parties

(a) Minister for Finance

Under section 3 of the Carbon Fund Act 2007, the Minister for Finance may advance moneys to the Carbon Fund from the Central Fund, which are reimbursed by the Carbon Fund out of moneys made available by the Minister for the Environment, Community and Local Government. No advances were made to the fund in 2013.

(b) Minister for the Environment, Community and Local Government

Under section 2(3) of the Carbon Fund Act 2007, the Minister for the Environment, Community and Local Government manages and controls the Carbon Fund.

(c) National Treasury Management Agency

Under section 2(4) of the Carbon Fund Act 2007, the Minister for the Environment, Community and Local Government delegates the management of the Carbon Fund to the Agency.

Under section 8 of the Carbon Fund Act 2007, the Minister for the Environment, Community and Local Government may give directions or guidelines to the Agency in relation to the performance by it of the functions delegated or granted to it under the Act.

NOTES

NOTES



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