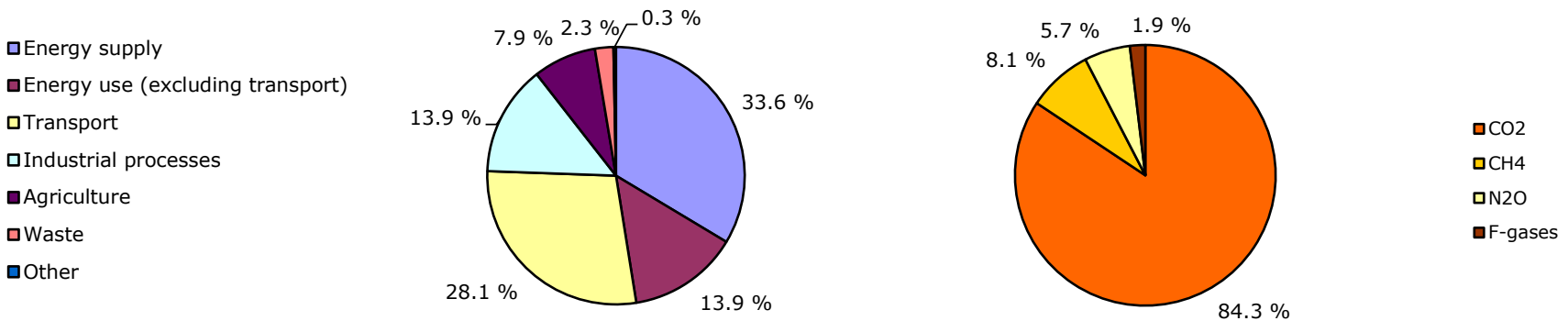
GHG trends and projections in Norway

European Environment Agency

Key GHG data ([1])	1990	2008	2009	2010	2011 ([2])	2012	1990–2011	2010–2011 ([2])
Average 2008–2012 target under the Kyoto Protocol (Mt CO_2-eq.)		50.1	50.1	50.1	50.1	50.1		
Total GHG emissions (Mt CO_2-eq.)	49.8	53.8	51.5	53.9	52.7	n.a.	5.8%	-2.2%
GHG from international bunkers ([3]) (Mt CO_2-eq.)	2.1	3.3	2.9	2.7	n.a.	n.a.	n.a.	n.a.
GHG per capita (t CO_2-eq. / capita)	11.8	11.4	10.7	11.1	10.7	n.a.	-9.0%	-3.5%
GHG per GDP (constant prices) ([4]) (g CO_2-eq. / euro)	327	209	203	212	204	n.a.	-37.7%	-3.8%
EU ETS allocated allowances (free + auctioning)		7.5	20.6	14.3	14.3	n.a.		0.0%
EU ETS verified emissions - all installations ([5]) (Mt CO_2-eq.)		19.3	19.2	19.3	19.2	n.a.		-0.7%
EU ETS verified emissions - constant scope ([6]) (Mt CO_2-eq.)		19.3	19.2	18.9	18.4	n.a.		-2.6%
Share of EU ETS verified emissions (all install.) in total GHG (%)		35.9 %	37.3 %	35.9 %	36.4 %	n.a.		1.5%
ETS verified emissions compared to annual allowances ([7]) (%)		256.6%	93.4%	134.9%	133.9%	n.a.		-0.7%
GHG emissions in the non-ETS sectors		34.5	32.3	34.6	33.5	n.a.		-3.0%
Equivalent annual target for non-ETS GHG emissions		42.6	29.5	35.8	35.8	n.a.		0.0%

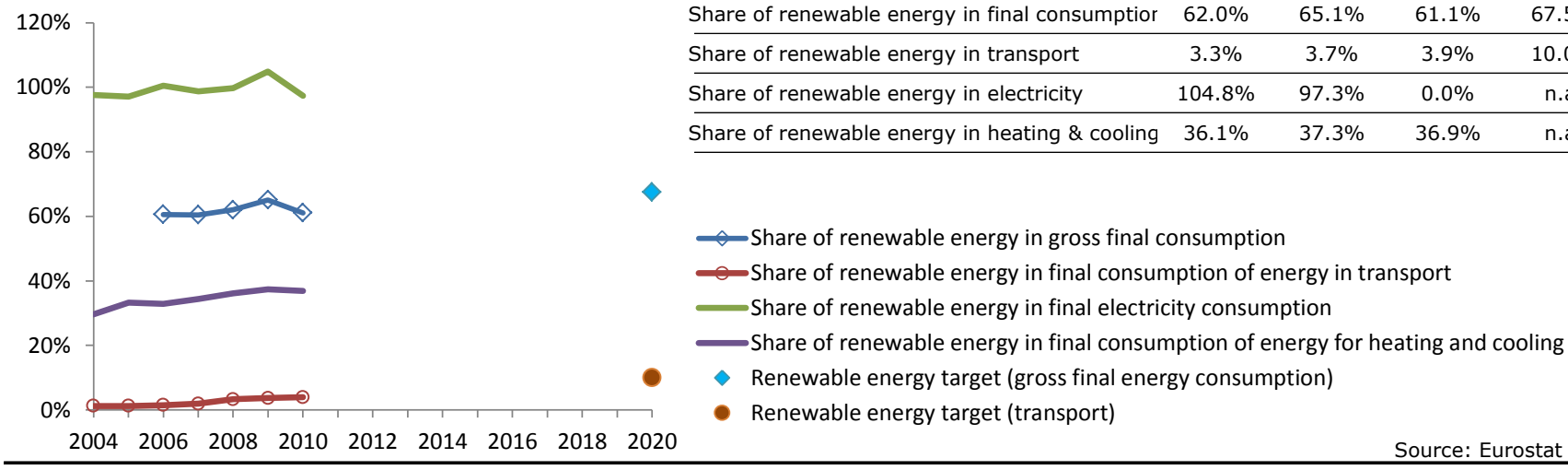
Share of GHG emissions (excluding international bunkers) by main source and by gas in 2010 ([1]) ([8])



Assessment of short-term GHG trend (2009–2010)

In 2010 emissions increased by almost 5% compared to 2009, mainly due to economic growth causing higher emissions in almost all sectors. Emissions from fuel combustion in energy industries have increased by 3% from 2009 to 2010. The CO2 emissions from stationary combustion have increased by nearly 12% from 2009 to 2010 which is mainly due to increased emissions from gas fired, combined heat and power plant and increased emissions from combustion in production of ferroalloys.

Key data and trends on renewable energy	2008	2009	2010	2020 target
Share of renewable energy in final consumptior	62.0%	65.1%	61.1%	67.5%
Share of renewable energy in transport	3.3%	3.7%	3.9%	10.0%
Share of renewable energy in electricity	104.8%	97.3%	0.0%	n.a.
Share of renewable energy in heating & cooling	36.1%	37.3%	36.9%	n.a.



Source: Eurostat

Source and additional information

Greenhouse gas emission data and EU ETS data www.eea.europa.eu/themes/climate/data-viewers

([1]) Total greenhouse gas emissions (GHG), GHG per capita, GHG per GDP and shares of GHG do not include emissions and removals from LULUCF (carbon sinks) and emissions from international bunkers.

([2]) Based on national estimate of 2011 emissions.

([3]) International bunkers: international aviation and international maritime transport.

([4]) Gross domestic product (GDP) in 2005 market prices - not suitable for a ranking or quantitative comparison between countries for the same year. GDP information for the year 1990 is not available for some countries. For this reason, the 'GHG per GDP' values presented in the '1990' column correspond to the following years: 1991 (EU-15, Bulgaria, Germany, Hungary and Malta), 1992 (Slovakia), 1993 (EU-27 and Estonia) and 1995 (Croatia). Source GDP: Annual macro-economic database (AMECO), European Commission, 2012.

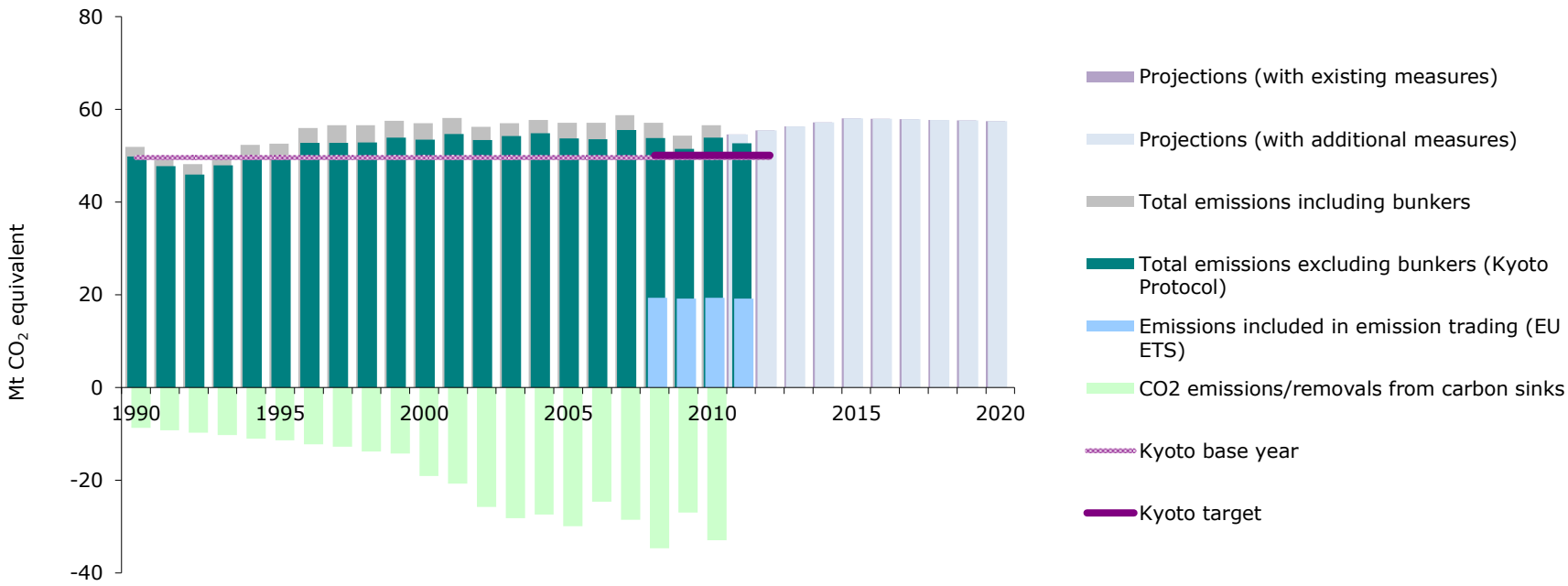
([5]) All installations included. This includes new entrants and closures. Data from the community independent transaction log (CITL) as of 31 July 2012. The CITL regularly receives new information (including delayed verified emissions data, new entrants and closures) so the figures shown may change over time.

([6]) Constant scope: includes only those installations with verified emissions available for 2008, 2009, 2010 and 2011.

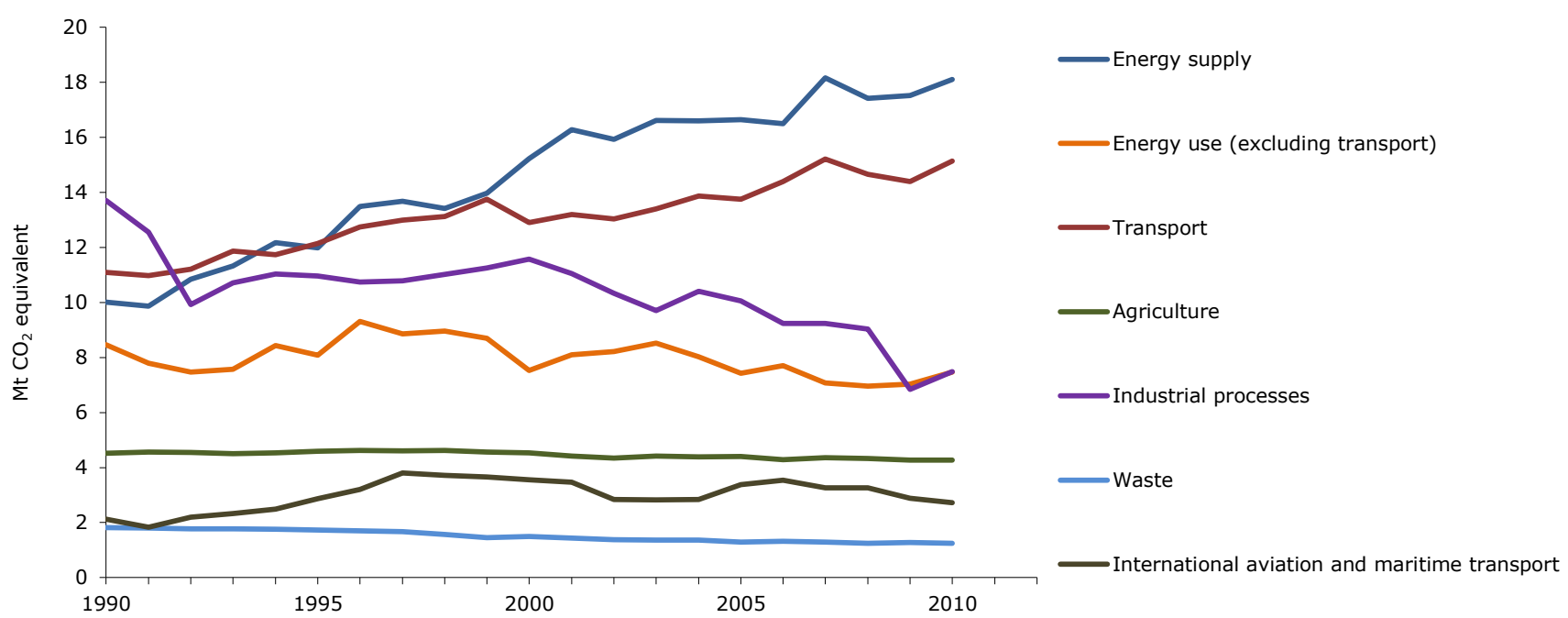
([7]) "+" and "-" mean that verified emissions exceeded allowances or were below allowances, respectively. Annual allowances include allocated allowances and allowances auctioned during the same year.

([8]) LULUCF sector and emissions from international bunkers excluded. Due to independent rounding the sums may not necessarily add up.

GHG trends and projections 1990–2020 — total emissions



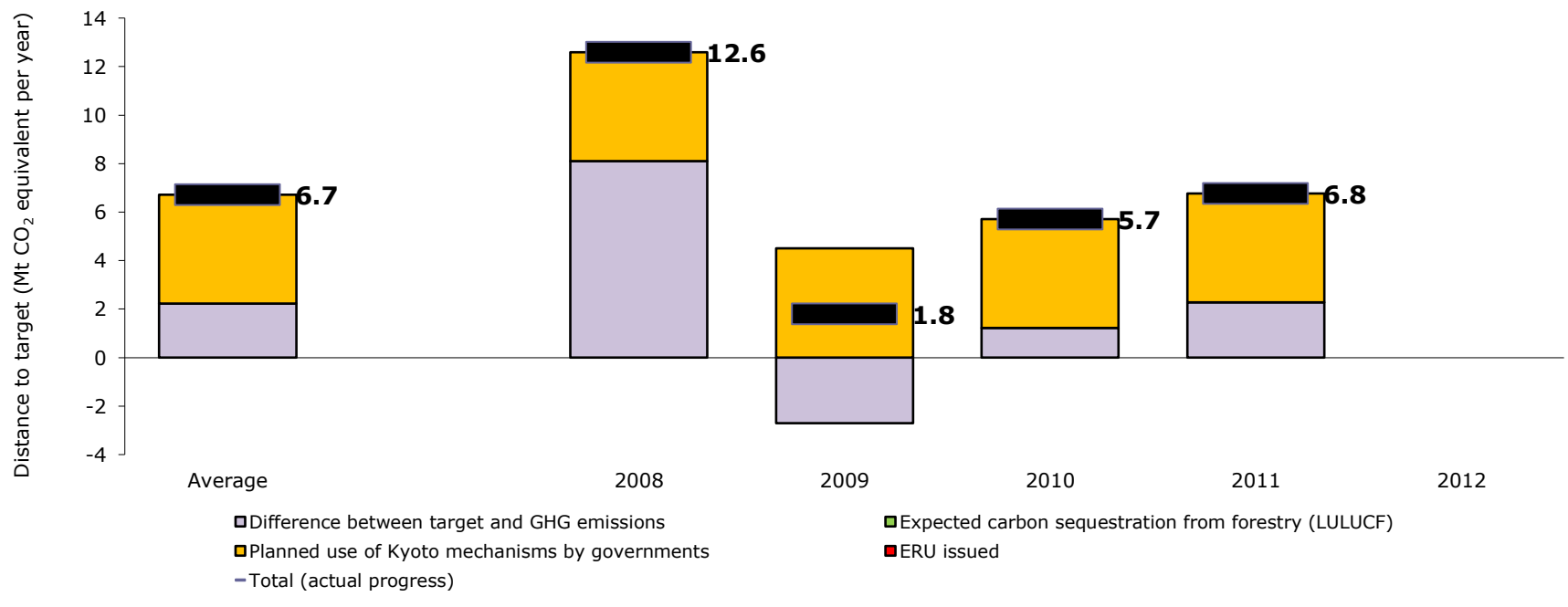
GHG trends 1990–2010 - emissions by sector



Source: National GHG inventory report, 2012.

Progress towards Kyoto target

Average 2008–2011 emissions in Norway were 6.8 % higher than the base-year level, significantly above the Kyoto target of 1 % for the period 2008–2012. In the sectors not covered by the EU ETS, emissions were lower than their respective target, by an amount equivalent to 4.5 % of base-year emissions. Norway intends to use the flexible mechanisms at government level by acquiring an amount of Kyoto units equivalent to 9.1 % of base-year emissions per year. Taking all these effects into account, average emissions in the sectors not covered by the EU ETS in Norway were standing below their target level, by a gap representing 13.5 % of the base-year emissions. Norway was therefore on track towards its Kyoto target by the end of 2011.



Note: The difference between target and GHG emissions concerns the sectors not covered by the EU ETS. A positive value indicates emissions lower than the average target.