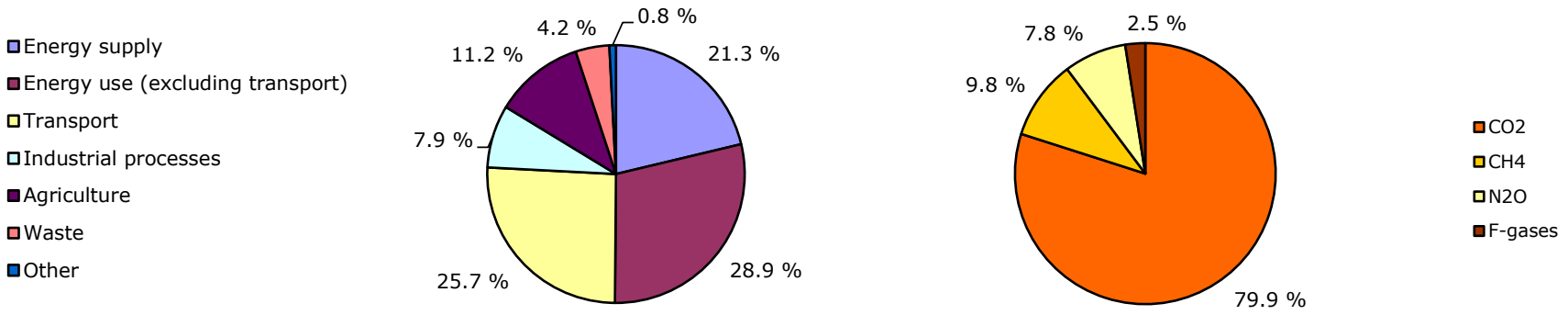
GHG trends and projections in Spain

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.)		333.2	333.2	333.2	333.2	333.2		
Total GHG emissions (Mt CO_2-eq.)	282.8	403.8	366.3	355.9	356.1	n.a.	25.9%	0.1%
GHG from international bunkers ([3]) (Mt CO_2-eq.)	17.5	41.8	40.6	40.1	n.a.	n.a.	n.a.	n.a.
GHG per capita (t CO_2-eq. / capita)	7.3	8.9	8.0	7.7	7.7	n.a.	5.9%	-0.3%
GHG per GDP (constant prices) ([4]) (g CO_2-eq. / euro)	481	409	385	374	372	n.a.	-22.7%	-0.6%
Share of GHG in total EU-27 emissions (%)	5.1 %	8.1 %	7.9 %	7.5 %	7.7 %	n.a.	52.8%	2.7%
EU ETS allocated allowances (free + auctioning)		153.9	150.7	150.9	150.9	n.a.		0.0%
EU ETS verified emissions - all installations ([5]) (Mt CO_2-eq.)		163.5	136.9	121.5	132.7	n.a.		9.2%
EU ETS verified emissions - constant scope ([6]) (Mt CO_2-eq.)		162.6	136.4	120.3	128.9	n.a.		7.1%
Share of EU ETS verified emissions (all install.) in total GHG (%)		40.5 %	37.4 %	34.1 %	37.3 %	n.a.		9.1%
ETS verified emissions compared to annual allowances ([7]) (%)		106.2%	90.9%	80.5%	87.9%	n.a.		9.2%
GHG emissions in the non-ETS sectors		240.4	229.3	234.4	223.4	n.a.		-4.7%
Equivalent annual target for non-ETS GHG emissions		179.4	182.5	182.4	182.4	n.a.		0.0%

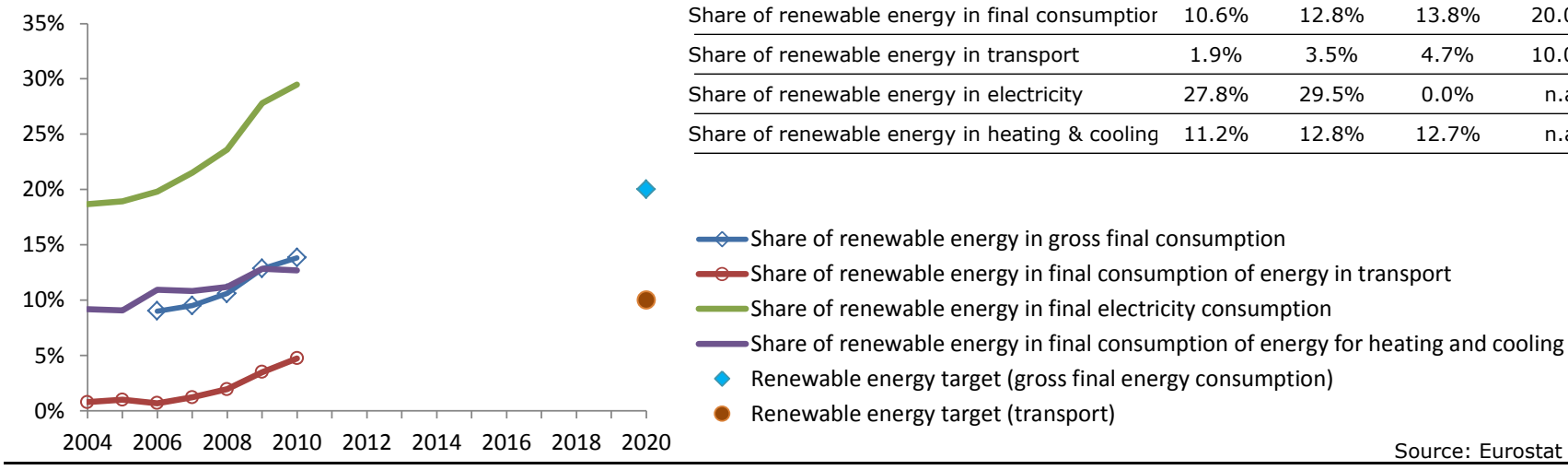
Share of GHG emissions (excluding international bunkers) by main source and by gas in 2010 ([1]) ([8])



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

Spain showed decreasing emissions between 2009 and 2010 together with only a few other EU countries (-2.8%). The emission decrease is mainly due to public electricity and heat production and road transport. The emission decline from public electricity and heat productions reflects a marked decline in thermal power production mainly due to increasing hydro, wind and nuclear power production. Emission decreases from transport mainly reflect the continuing economic crisis in Spain.

Key data and trends on renewable energy	2008	2009	2010	2020 target
Share of renewable energy in final consumptior	10.6%	12.8%	13.8%	20.0%
Share of renewable energy in transport	1.9%	3.5%	4.7%	10.0%
Share of renewable energy in electricity	27.8%	29.5%	0.0%	n.a.
Share of renewable energy in heating & cooling	11.2%	12.8%	12.7%	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.

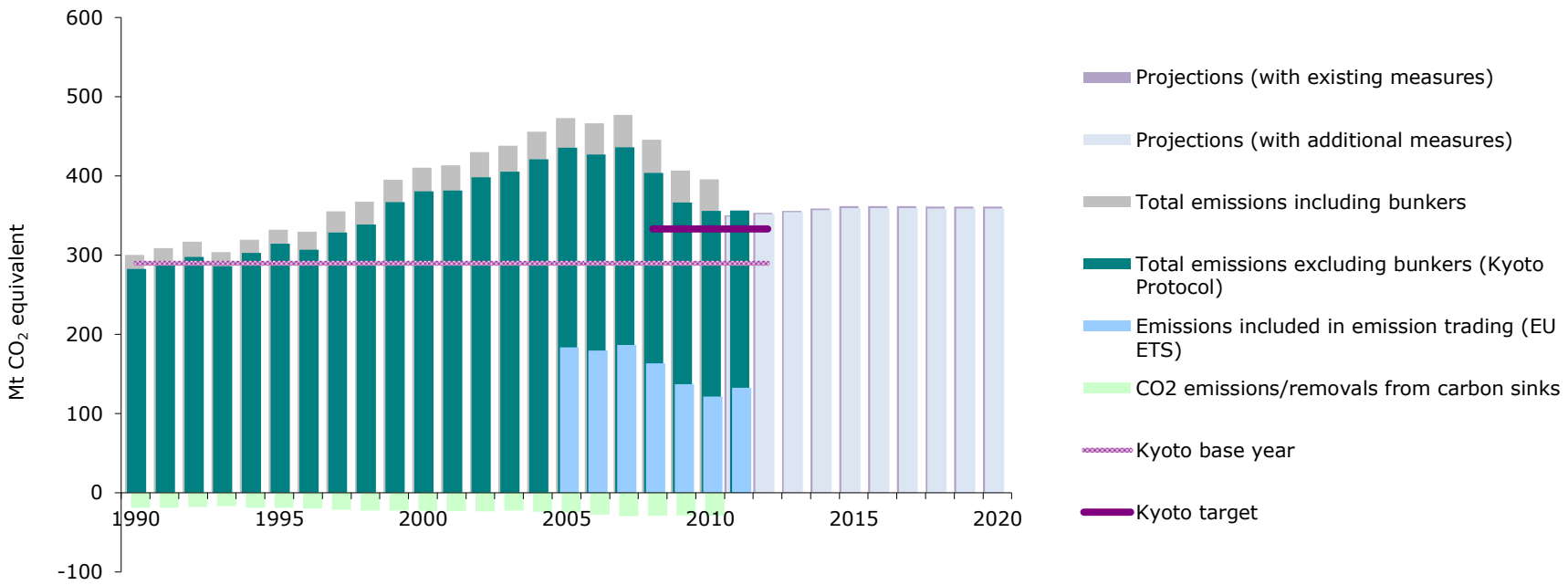
([5]) All installations included. This includes new entrants and closures. Data from the community independent transaction log (CITL) as of 31 July 2012. The CITL regularly receives new information (including delayed verified emissions data, new entrants and closures) so the figures shown may change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

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

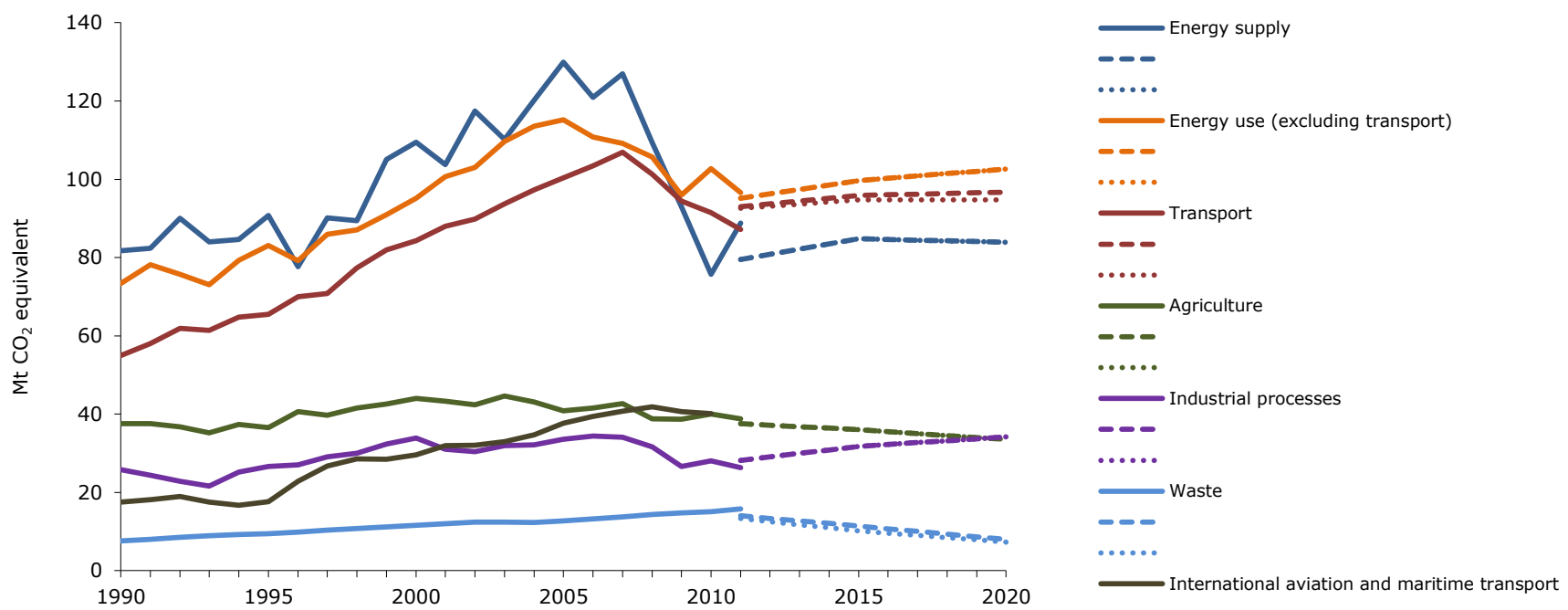
([7]) "+" and "-" mean that verified emissions exceeded allowances or were below allowances, respectively. Annual allowances include allocated allowances and allowances auctioned during the same year.

([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 and projections 1990–2020 — emissions by sector

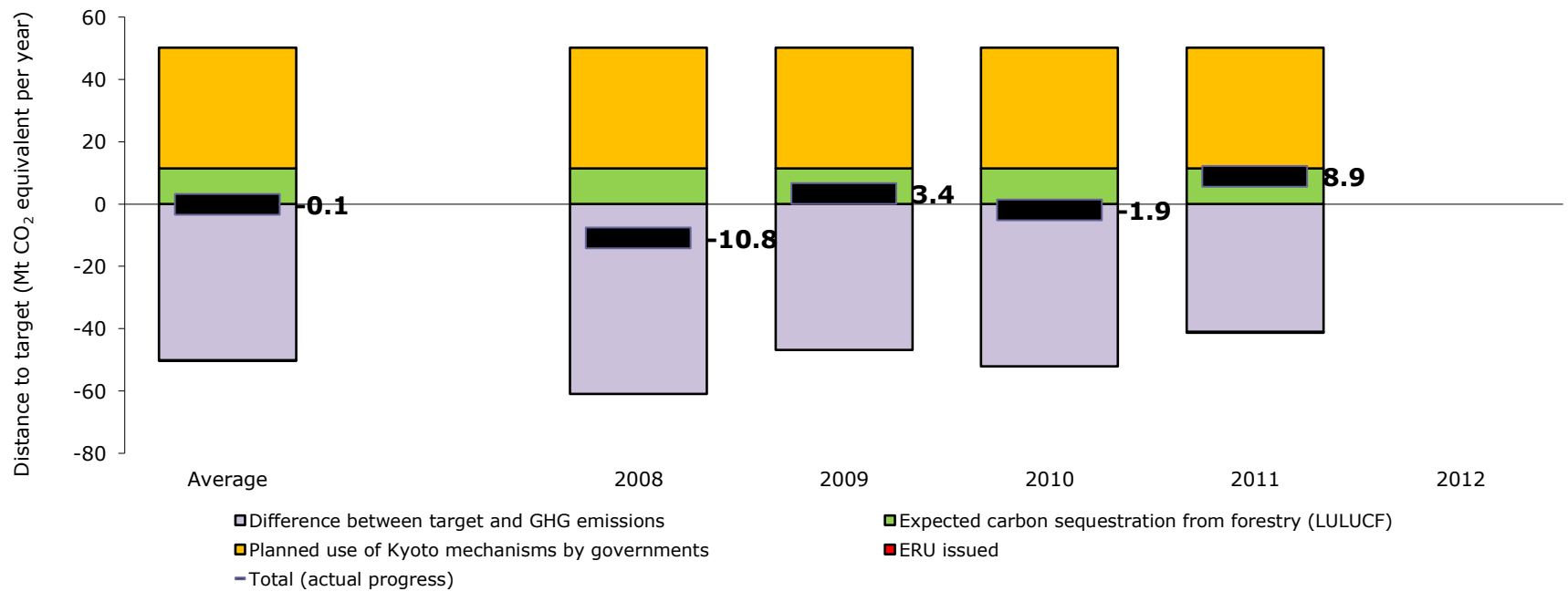


Note: GHG emission projections are represent either through dashed lines (with existing measures) or dotted lines (additional measures).

Source: National GHG inventory report, 2012; national proxy estimate of 2011 GHG emissions; national GHG projection data submitted in 2011.

Progress towards Kyoto target

Average 2008–2011 emissions in Spain were 27.9 % higher than the base-year level, significantly above the burden-sharing target of 15 % for the period 2008–2012. In the sectors not covered by the EU ETS, emissions were significantly higher than their respective target, by an amount equivalent to 17.3 % of base-year emissions. LULUCF activities are expected to decrease net emissions by an annual amount equivalent to 3.9 % of base-year level emissions. Spain intends to use the flexible mechanisms at government level by acquiring an amount of Kyoto units equivalent to 13.4 % of base-year emissions per year. Taking all these effects into account, a very small current shortfall of 0.1 Mt CO2-equivalent per year (0.03 % of base-year emissions) remains. Such a gap could, for example, be bridged if non-ETS emissions were not to increase in 2012 compared to 2011 levels. Nevertheless, Spain faces the challenge of fulfilling by 2015 its plan to acquire an average of 38.8 million units per year of the commitment period. Although the total projected quantities of credits from flexible mechanisms for the first commitment period increased from 159 to 194 million units compared to 2011, a concurrent rise in the budget was not reported. The reported budget of over EUR 400 million would currently be equivalent to a price of about EUR 2 per tonne of CO2.



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.