



Ministry for the Environment, Land and Sea

Multilateral Assessment

Italy

Italy's quantified economy-wide emission reduction target (QEERT)

- Italy's quantified economy-wide emission reduction target is enshrined within the EU commitment of a **20% emission reduction by 2020 compared with 1990 levels.**
- Legally binding target trajectories for the period 2013-2020 are enshrined in both the EU-ETS Directive (Directive 2003/87/EC and respective amendments) and the Effort Sharing Decision (Decision n. 406/2009/EC).
- These legally binding trajectories do not only result in a 20% GHG reduction in 2020 compared to 1990 but also define the national annual target pathway to reduce EU GHG emissions from 2013 to 2020.

Description of QEERT: gases and sectors covered; GWP

Gases covered		Base year for each gas (year)
CO ₂		1990
CH ₄		1990
N ₂ O		1990
HFCs		1990
PFCs		1990
SF ₆		1990
NF ₃		1995
Sectors covered	Energy	Yes
	Transport ^a	Yes
	Industrial processes ^b	Yes
	Agriculture	Yes
	LULUCF ^c	No
	Waste	Yes

^a Transport is reported as a subsector of the energy sector.

^b Industrial processes refer to the industrial processes and solvent and other product use sectors.

^c Except for mandatory activities afforestation, reforestation, deforestation and forest management

The global warming potential values (GWP) from 4th Assessment Report will be used.

European context

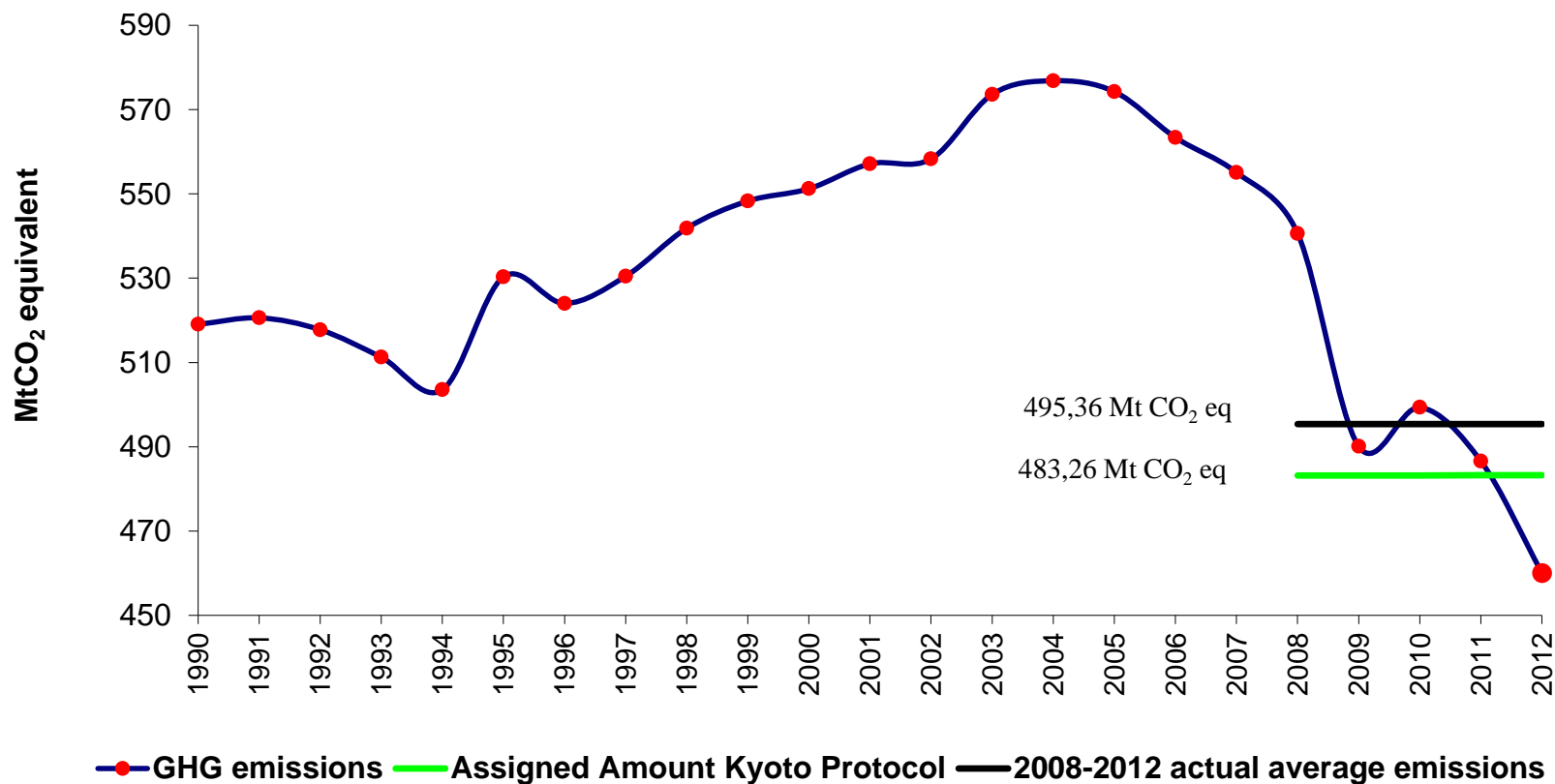
The actions taken by Italy to mitigate climate change are driven by two different objectives:

- Kyoto Protocol target for the period 2008-2012
- the “EU Climate Energy Package” for the period 2013-2020, which include emission reductions to be achieved by the European Union (EU) and its Member states by the year 2020.

The Kyoto Protocol

- Italy is a Member State of the European Union (EU) and under the Kyoto Protocol, the EU-15 has agreed to reduce its greenhouse gas (GHG) emissions by 8% in the period 2008–2012 compared to base year levels
- In the framework of the EU Burden Sharing Agreement, Italy has committed to reduce its greenhouse gas emissions by 6.5% below base-year levels (1990) over the first commitment period, 2008-2012. The Kyoto objective has been established as 483.26 MtCO₂/year for each of the years of the “commitment period”.

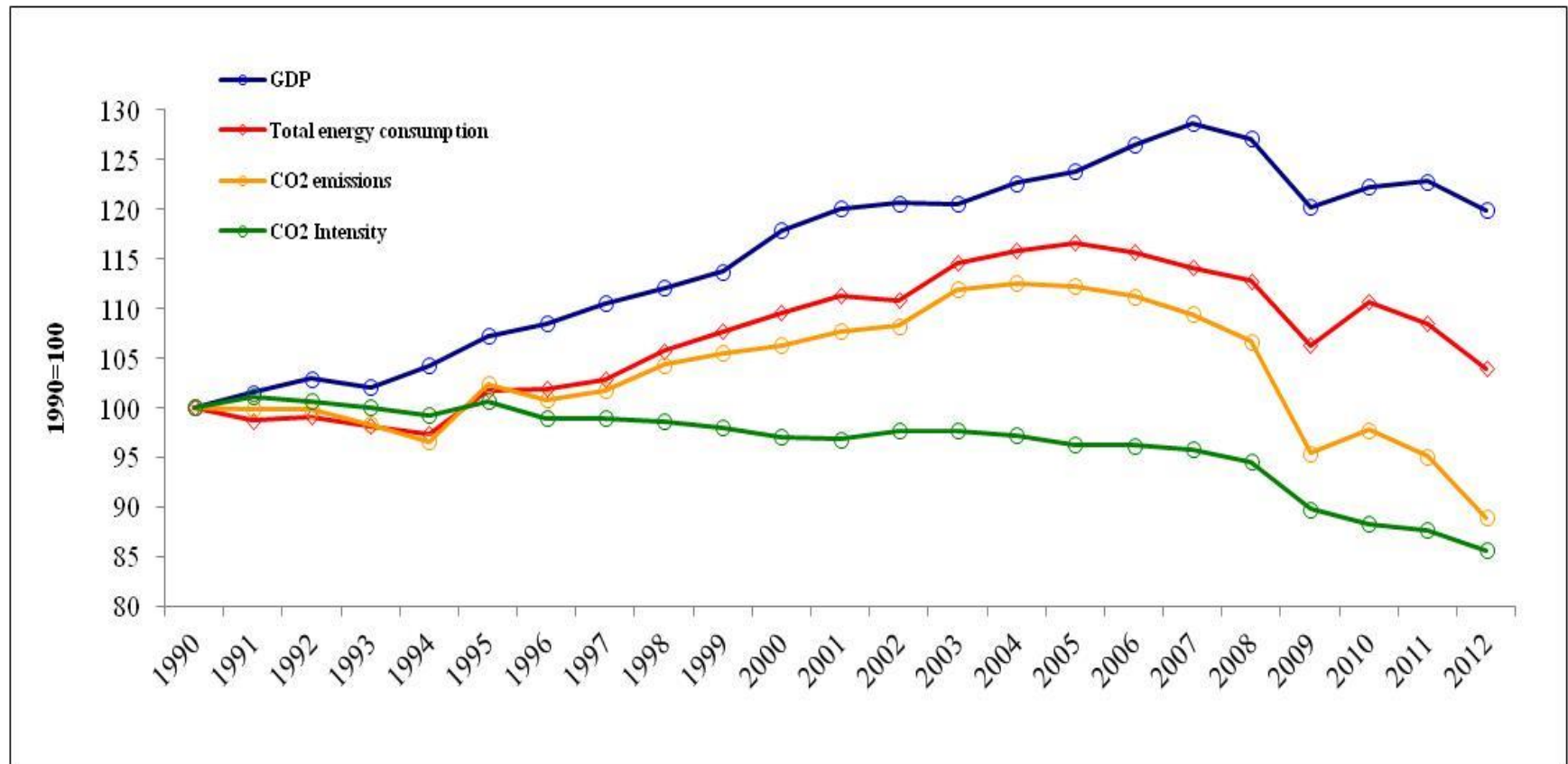
National greenhouse gas emissions trend



Between 1990 and 2012 total GHG emissions have decreased by 11.2%.

The compliance with the Kyoto target is ensured by the use of credits from LULUCF activities and Kyoto mechanisms (75.3 Mt and 10.2 Mt in CO₂ equivalent respectively for the whole 2008-2012 period).

Energy-related and economic indicators



CO₂ emissions in the 1990s essentially mirrored energy consumption while a decoupling between the curves is observed from 2000, mainly as a result of the substitution of fuels with high carbon contents by natural gas for energy production and in industry. In the last years, the increase in the use of renewable sources has led to a notable reduction of CO₂ intensity (CO₂/energy consumption)

Major policies in the energy sector

Renewables - The Green Certificates system (Legislative decree 79/99) introduced the obligation on electricity providers (generators and importers) to feed the grid with a minimum share of electricity produced from renewable energy sources

Renewables - The All-inclusive tariff incentive scheme “tariffa omnicomprensiva” (alternative to Green Certificates) is open to RES power plants with installed capacity of less than 1 MW (200 kW for wind power plants), commissioned between 2008 and 2012

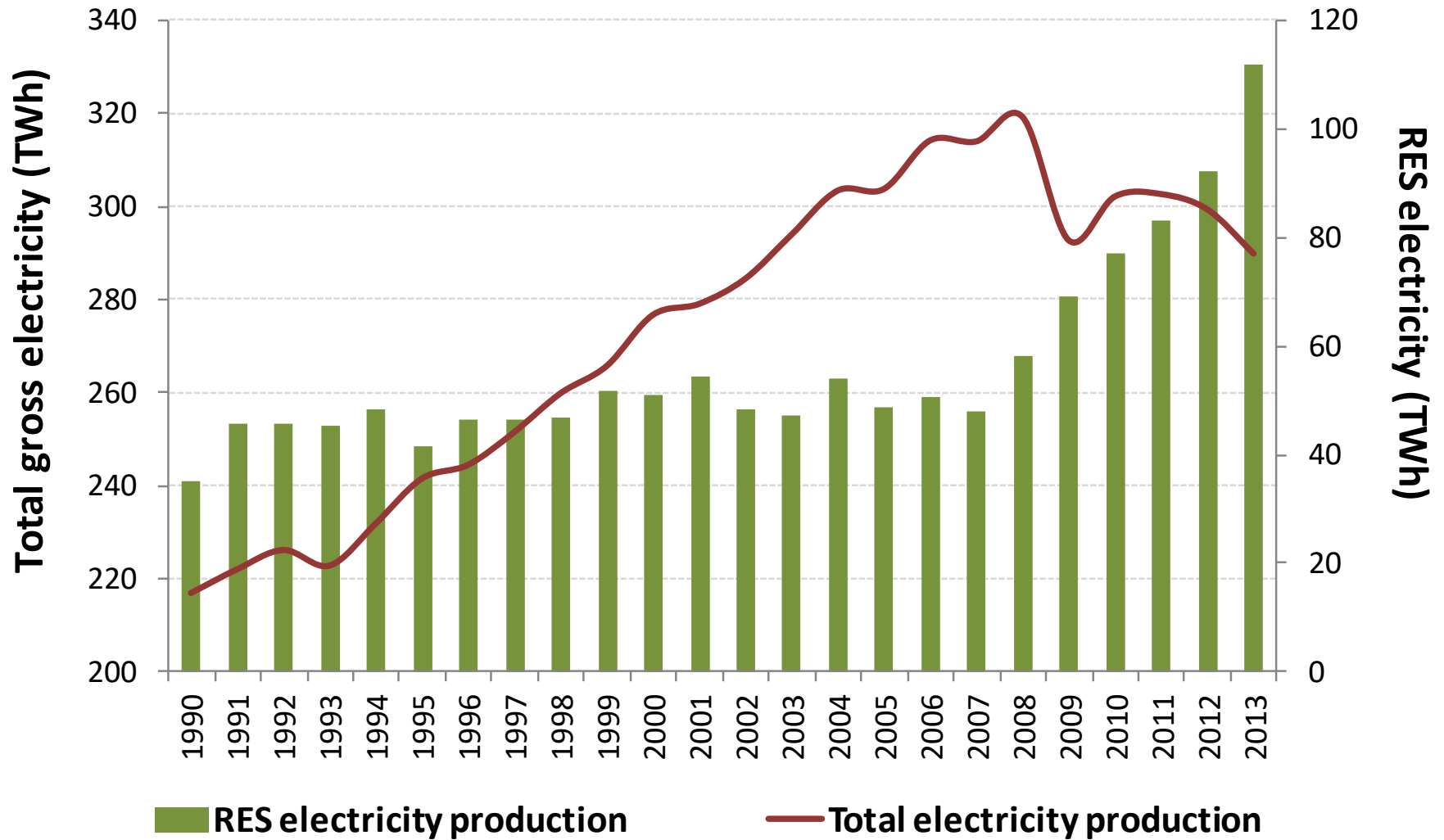
Renewables - The Feed-in scheme “Conto Energia” has been regulated since 2005 by five Ministerial Decrees, the last being the Ministerial Decree of 5 July 2012 (Fifth Feed-in Scheme), which entered into force on 27 August 2012.

Energy efficiency - The so called “White Certificate Decree”, issued in December 2012, establishes national quantitative targets of energy savings that must be pursued to the distribution companies for electricity and gas from 2013 to 2016 and for the expansion of white certificates mechanism.

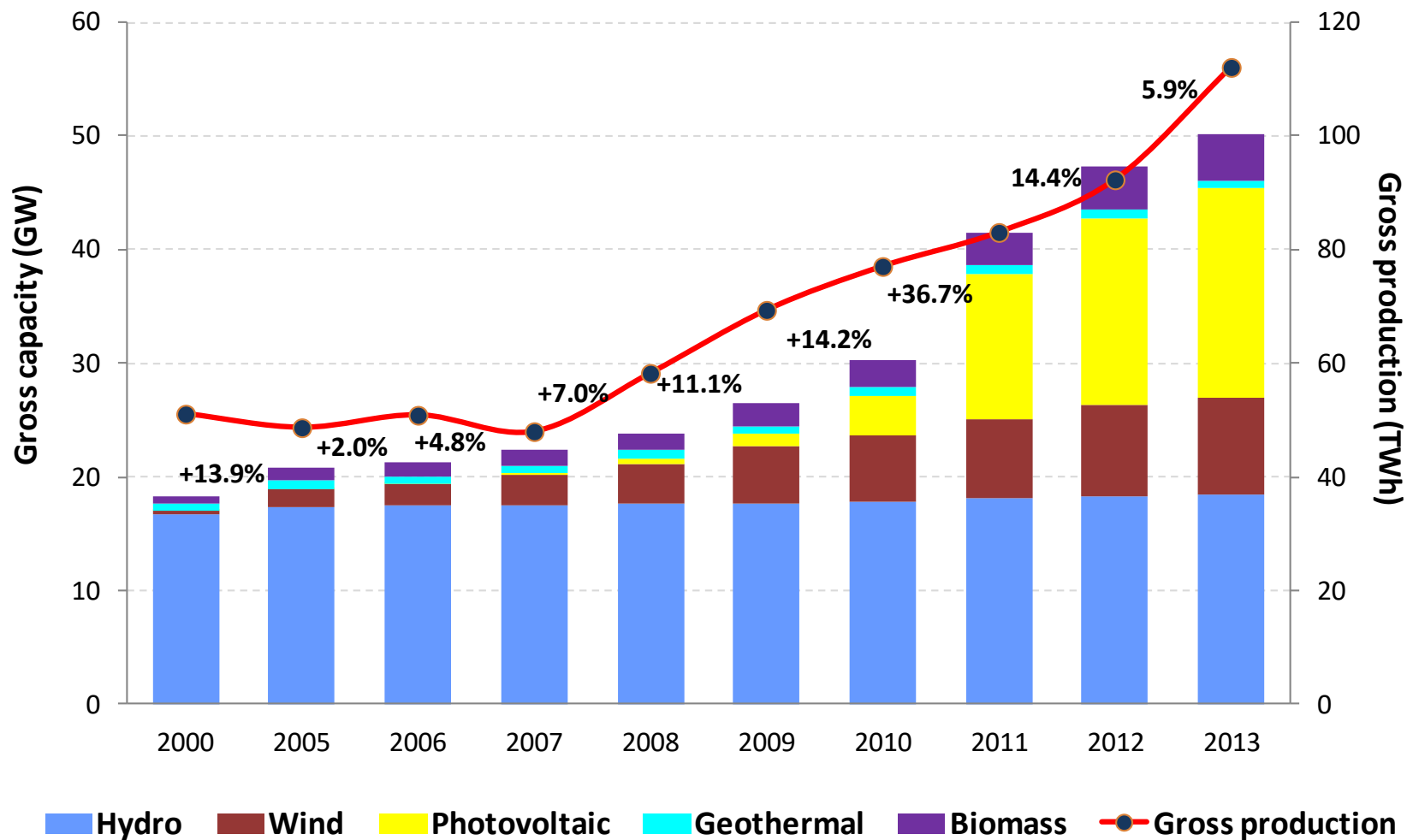
Energy efficiency - The 28th December 2012 decree, the so called “Conto Termico” decree, implements the incentive scheme introduced by Legislative Decree 28/2011; on a scheme of support for small-scale projects of energy efficiency improvement and production of thermal energy from renewables.

Residential sector - Budget Law 1998 introduced the possibility of deducting from IRPEF (personal income tax) part of the costs incurred (36%) for restructuring dwellings and common parts of residential buildings.

Total and RES electricity production



Renewable power capacity and production by type of RES



Total power capacity, including renewables, goes from 102.3 GW (gross efficient power) in 2008 to 128.6 GW in 2013. Since 2008 the new power (26.3 GW) is mainly constituted by RES plants. The capacity growth has been essentially affected by photovoltaic (18.0 GW), wind (5.0 GW), and biomass plants (2.5 GW).

The “Climate and Energy Package”

In March 2007 conclusion of the European Council named “Integrated Energy and Climate Change Package” (IECCP) commits the European Member State to achieve by 2020 the following targets:

20% reduction of EU greenhouse gas emissions compared to 1990

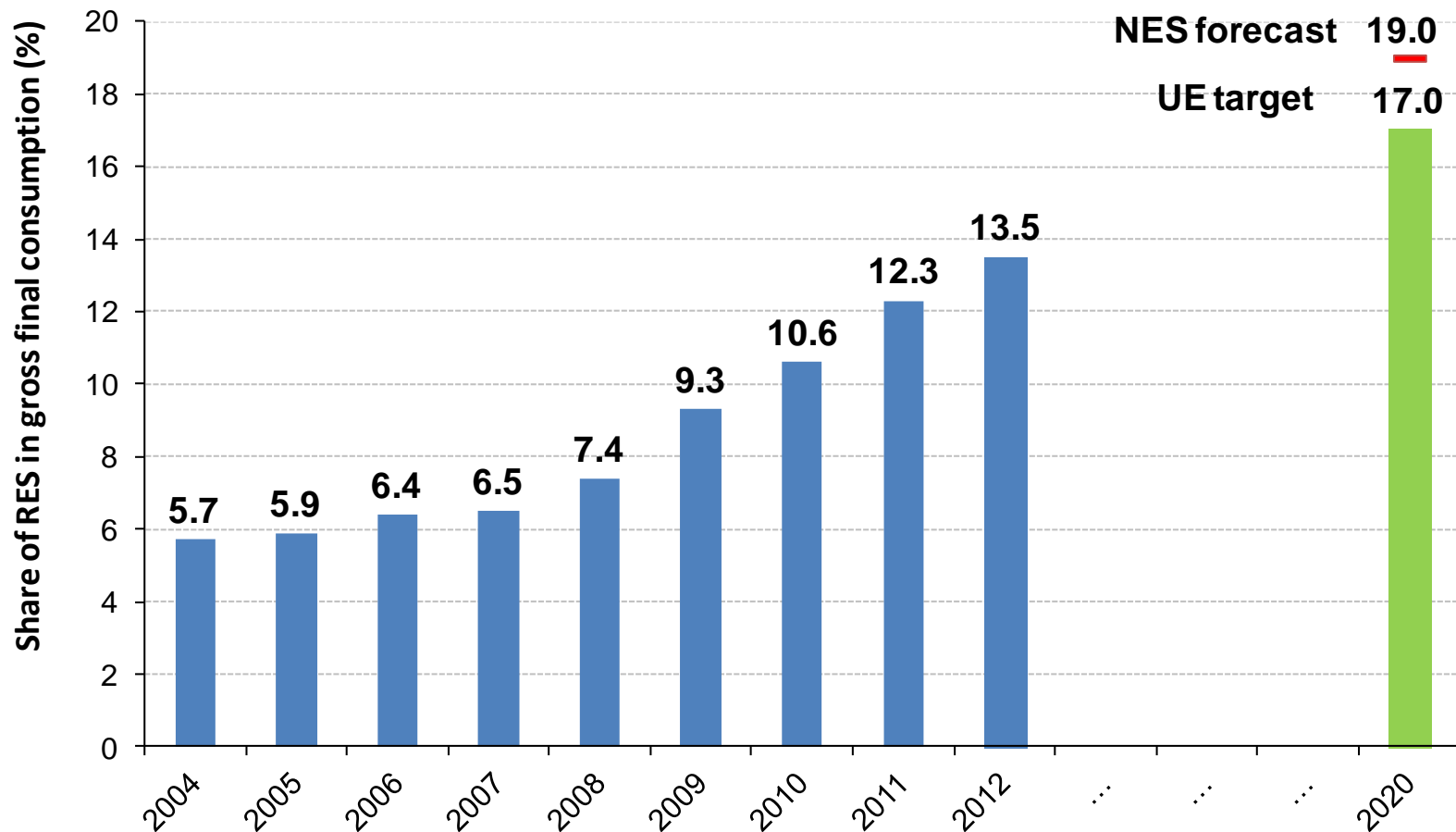
- EU Emission trading system (around 40% of total national emissions) where EU wide cap is based on harmonized rules
- Member States 2020 target for non-ETS sectors (e.g. transport, agriculture, residential, part of industry, waste) established by the Effort Sharing Decision which assigns a reduction emission target equal to -13% for Italy from 2005 level

20% reduction in energy use to be achieved by improving energy efficiency

20% share of renewable energy:

- EU translated into national target by Directive 2009/28/EC, which defines national overall targets for the share of energy by renewable sources in gross final consumption of energy in 2020 (17% for Italy)

Renewable share in gross final consumption (2009/28/EC)



The target for the consumption of renewable energy assigned to Italy is 17% of gross final consumption. Italy is on track to reach the target. In 2012 Italy exceeded its average indicative trajectories for Renewable Energy Directive. The National Energy Strategy forecasts to reach the target of 19%.

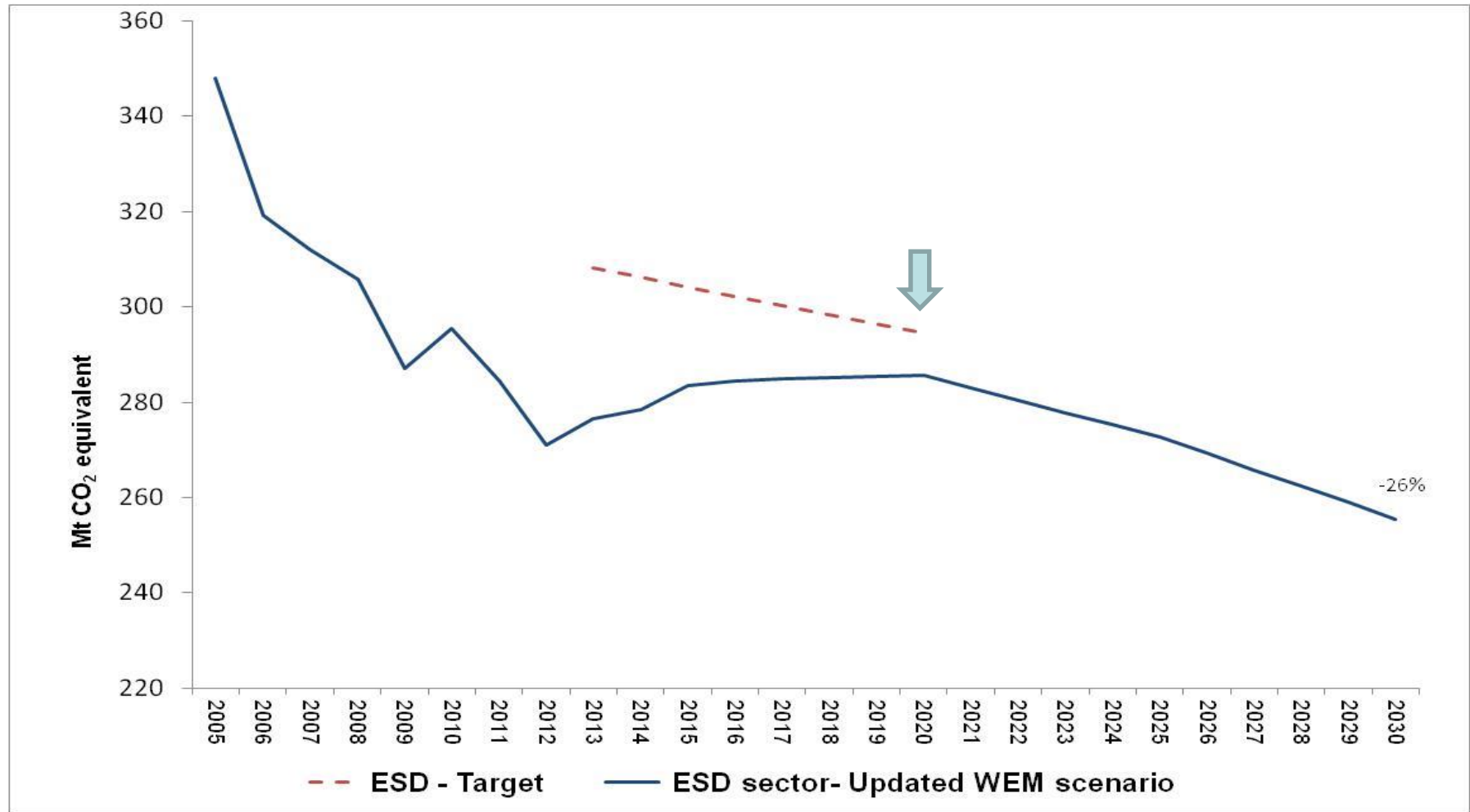
ESD 2013-2020 targets for Italy

	2013	2014	2015	2016	2017	2018	2019	2020
	Mt CO2	Mt CO2	Mt CO2	Mt CO2	Mt CO2	Mt CO2	Mt CO2	Mt CO2
ITALY ESD Target - (with GWPs of 1996 IPCC guidelines)	310.1	308.1	306.2	304.2	302.2	300.2	298.3	296.3
ITALY ESD Target - (with GWPs of 2006 IPCC guidelines)	317.8	315.6	313.5	311.3	309.2	307.1	304.9	302.8

Effort sharing decision determines annual emission allocations for the period 2013-2020 in CO₂ equivalent calculated applying global warming potential values (GWP) from the second and fourth IPCC assessment reports.



Emission projections for ESD sectors



The last GHG emission projections show that Italy is in compliance with its annual target for the whole period 2013-2020 and with the existing measures reduce its non-ETS emissions of 26% from 2005



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Thank you

Quantitative contribution of Kyoto mechanisms for the first commitment period

Kyoto mechanism	Total projected quantities for the first commitment period
	(Gg CO₂ equivalent)
Total for all Kyoto mechanisms	10.15
International emissions trading	2
All project based activities	
<i>joint implementation</i>	0.15
<i>clean development mechanism</i>	8

Production of electricity by source 1990-2012 (GWh)

Increase in the production of energy from renewable sources

Source	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
	GWh										
Hydroelectric	35,079	41,907	50,900	42,927	43,425	38,481	47,227	53,443	54,407	47,757	43,854
Thermoelectric	178,590	196,123	220,455	253,073	262,165	265,764	261,328	226,638	231,248	228,507	217,561
- solid fuels	32,042	24,122	26,272	43,606	44,207	44,112	43,074	39,745	39,734	44,726	46,755
- natural gas	39,082	46,442	97,607	149,259	158,079	172,646	172,697	147,270	152,737	144,539	129,058
- derivated gases	3,552	3,443	4,252	5,837	6,251	5,645	5,543	3,701	4,731	5,442	5,000
- oil products	102,718	120,783	85,878	35,846	33,830	22,865	19,195	15,878	9,908	8,474	9,409
- other fuels	1,196	1,333	6,446	18,525	19,797	20,495	20,820	20,044	24,138	25,326	27,340
Geothermic	3,222	3,436	4,705	5,325	5,527	5,569	5,520	5,342	5,376	5,654	5,592
Eolic and Photovoltaic	0	14	569	2,347	2,973	4,073	5,054	7,219	11,032	20,652	32,269
Total	216,891	241,480	276,629	303,672	314,090	313,888	319,130	292,642	302,062	302,570	299,276

Source: *TERNA, National operator grid*

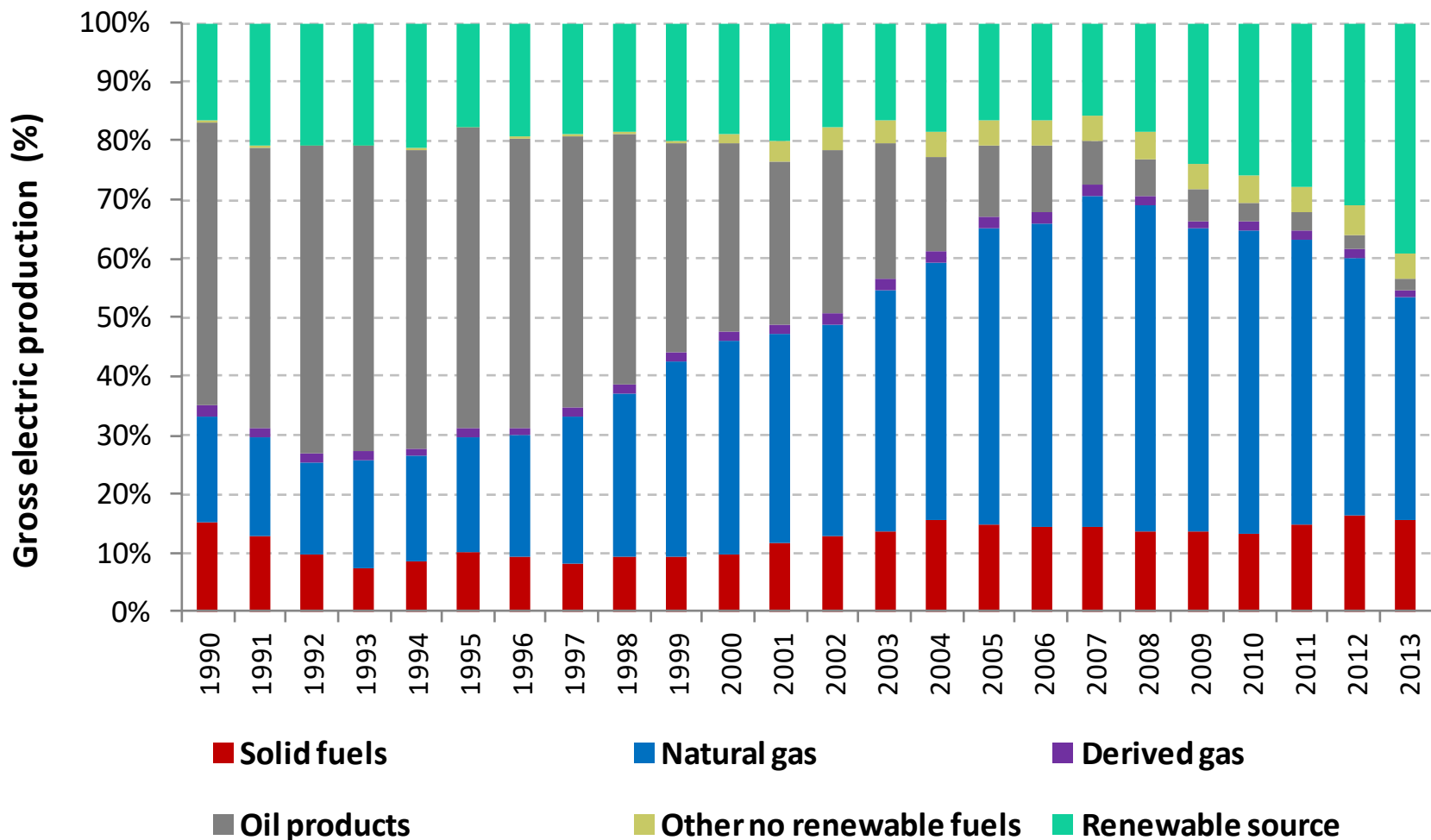
Total energy consumption by primary source 1990-2012 (%)

Total energy consumption by primary source shows an evident change from oil products to natural gas while the consumption of solid fuels and electricity maintain their share constant

Sources	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012
	%										
renewable	0.7	0.9	1.1	2.0	2.2	2.6	2.9	3.7	4.3	4.7	5.1
solid fuels	9.6	7.9	6.9	8.6	8.7	8.9	8.8	7.3	8.0	9.0	9.4
natural gas	23.7	25.7	31.4	36.0	35.5	36.0	36.4	35.4	36.2	34.6	34.8
crude oil	56.2	54.9	49.5	43.1	43.4	42.4	41.4	40.6	38.5	37.5	35.3
primary electricity	9.8	10.5	11.1	10.3	10.1	10.0	10.6	13.0	13.1	14.1	15.3

Source: *Ministry of Economic Development*

Share of fuels in power sector



In 2013 the gross electricity production from renewable sources reaches 112 TWh, 38.6% of national electricity production and 37.7% of national electricity consumption.

Italian commitment under Art. 3.14 KP

- National and sectoral Italian policies are expected to have no direct impacts in developing countries. Climate policies are formulated and implemented in a way that minimise the potential adverse impacts on specific sectors of economic activity, industrial sectors or other Parties to the Convention, including the adverse effects on the international trade, social, environmental and economic impacts in developing countries.
- As concerns domestic action, mitigation measures included in the national climate change strategy do not focus exclusively on CO₂ from fossil fuels, but cover all sectors of economic activity which are related with GHG emissions or with carbon sinks.
- Policies and measures in the Italian energy sector aim to increase energy efficiency and develop a low-carbon energy system but in the context of a global energy scenarios that do not foresee a decline in income for fossil fuel exporting countries (IEA, World Energy Outlook 2008).

Italian commitment under Art. 3.14 KP

- Furthermore, Italy has ensured that the measures implemented in order to increase the differentiation of energy sources do not contradict full liberalization of its energy markets. In particular, the promotion of natural gas consumption improves the safety of energy supply of the country, while new commercial relationships are developed with those countries from which natural gas is imported (e.g. Russia, Algeria, etc.).
- Efforts to tackle adverse **social, economic, and environmental** impacts of mitigation actions are directly expected in the framework of the Kyoto Mechanisms. Hence, the analysis has focused on the **Clean Development Mechanism and Joint Implementation** in order to provide response to reporting requirements under Article 3.14 of KP.

Italian commitment under Art. 3.14 KP

- Italy recognized that the project based Mechanisms, JI and CDM, play a role in meeting its commitment under the Protocol.
- The supplementarity principle embodied in the Kyoto Protocol was interpreted by the EU and its Member States as the possibility to use CERs/ERUs up to 50% of the GHG emissions reduction efforts.
- In the Italian National Allocation Plan for the period 2008-2012 the emissions reduction efforts was estimated to be equal to the “distance to the Kyoto target” in year 2005 (90.3 MtCO₂eq).
- As a consequence the maximum amount of CERs/ERUs that can be used in the period 2008-2012 is 45.15 MtCO₂eq (includes both CERs/ERUs to be used by the Government and by operators).

Italian commitment under Art. 3.14 KP

- Italy, as investor Party, contributes with 1.6% of world-wide CDM project portfolio.
- Italy is involved in more than 100 CDM registered projects, and directly, as government, in 47 registered CDM.
- A complete list of CDM projects is available in the NIR.
- Projects by dimension are:
 - 56.25% large scale
 - 43.75% small-scale
- Italy is the only proposer for 48% of the CDM projects.
- The credits CERs and ERUs are mainly purchased, by Italian Government, through the Italian Carbon Fund (ICF).
- Italy also contributes to the Community Development Carbon Fund (CDCF) and to the BioCarbon Fund (BioCF).

New & additional financial resources

- Since 2002, in order to meet the commitment under decisions FCCC/CP/2001/L.14, FCCC/CP/2001/L.15, and the “Bonn Declaration” of 2001, IMELS has been authorized by the law June 1, 2002, n° 120, to finance activities for **137.539.011,57 of million euros/(2009-12 years) in developing countries to contribute to the implementation of the UNFCCC.**
- Those resources are not considered in the Official Development Assistance register/accounting and are thus considered “new and additional” ones.