



MINISTERO DELL'AMBIENTE
E DELLA TUTELA DEL TERRITORIO E DEL MARE



ISPRA
Istituto Superiore per la Protezione
e la Ricerca Ambientale

Multilateral Assessment Italy



Repubblica Italiana

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

Italy's quantified economy-wide emission reduction target is 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 both in 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.

Global warming potential values (GWP) are from 4th Assessment Report

^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

Gases covered		Base year
	CO ₂	1990
	CH ₄	1990
	N ₂ O	1990
	HFCs	1990
	PFCs	1990
	SF ₆	1990
	NF ₃	1990
	Other Gases	
Sectors covered	Energy	Yes
	Transport ^a	Yes
	Industrial processes ^b	Yes
	Agriculture	Yes
	LULUCF	No
	Waste	Yes
	Other Sectors	

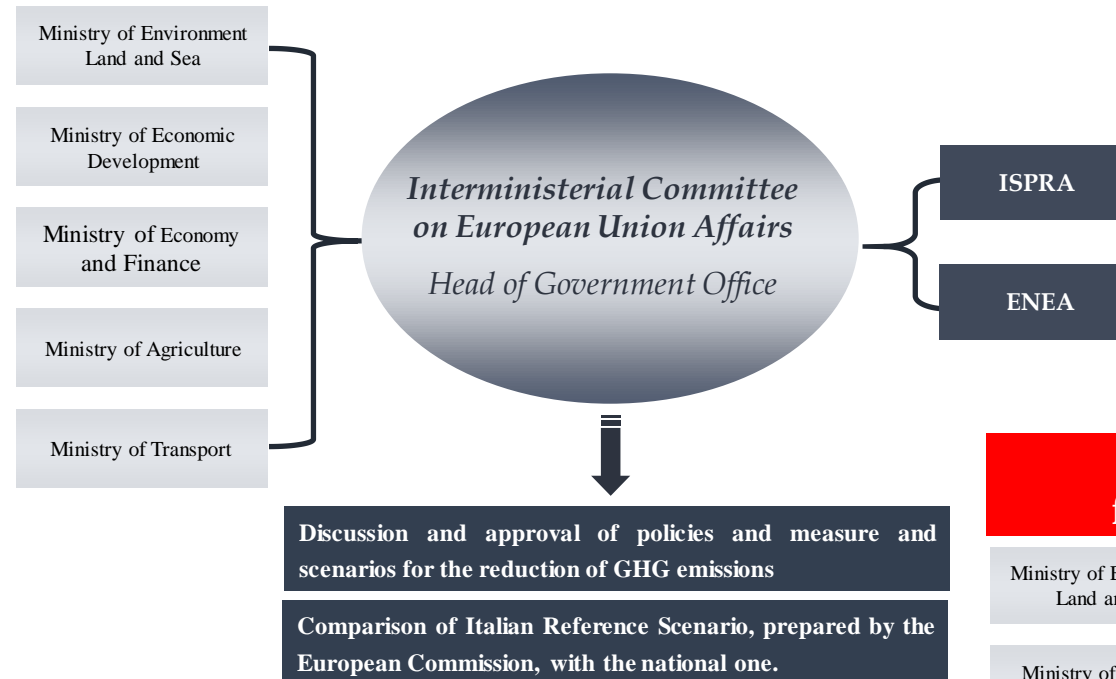
Progress in achievement of QEERT

The climate change mitigation actions undertaken by Italy are accomplished in the framework of the European Union legislation.

- For the first commitment period, Italy was committed to reduce its greenhouse gas emissions by 6.5% below base-year levels (1990) (EU Burden Sharing Agreement)
- 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 joint commitment is a reduction of average annual emissions by 20% compared to base year.
- **Italy has ratified the Doha Amendment to the Kyoto Protocol in July 2016** and elected cropland and grazing land management activities.

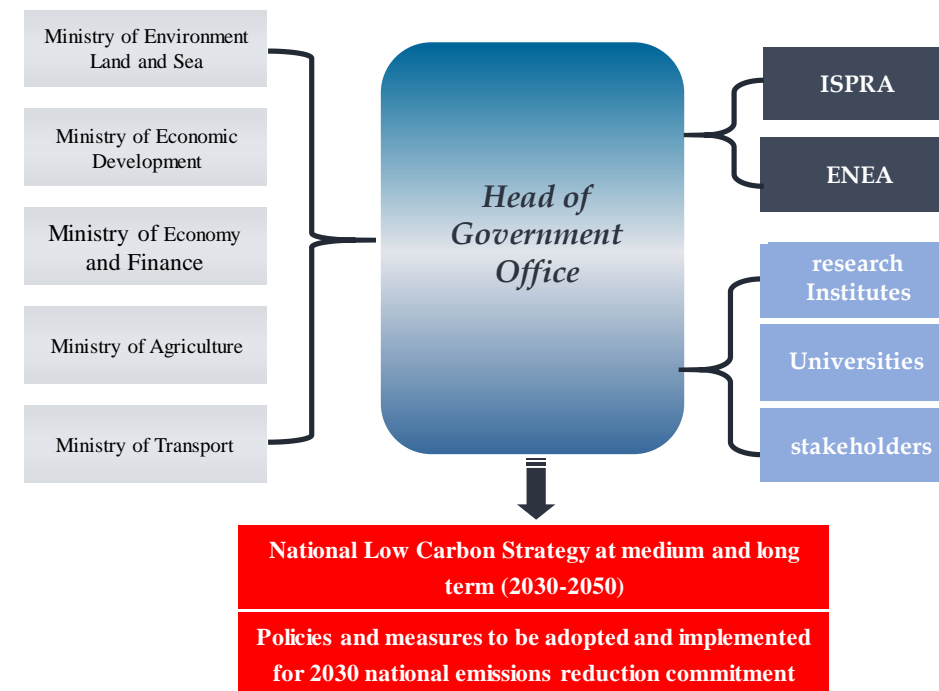
National decision-making process related to climate change policies

Interministerial working group for the national target definition



According with art. 12 of the EU Monitoring Mechanism Regulation (MMR 525/2013/EU) the National System for Policies and Measures and Projections has been set.

Interministerial working group for the National Low Carbon Strategy



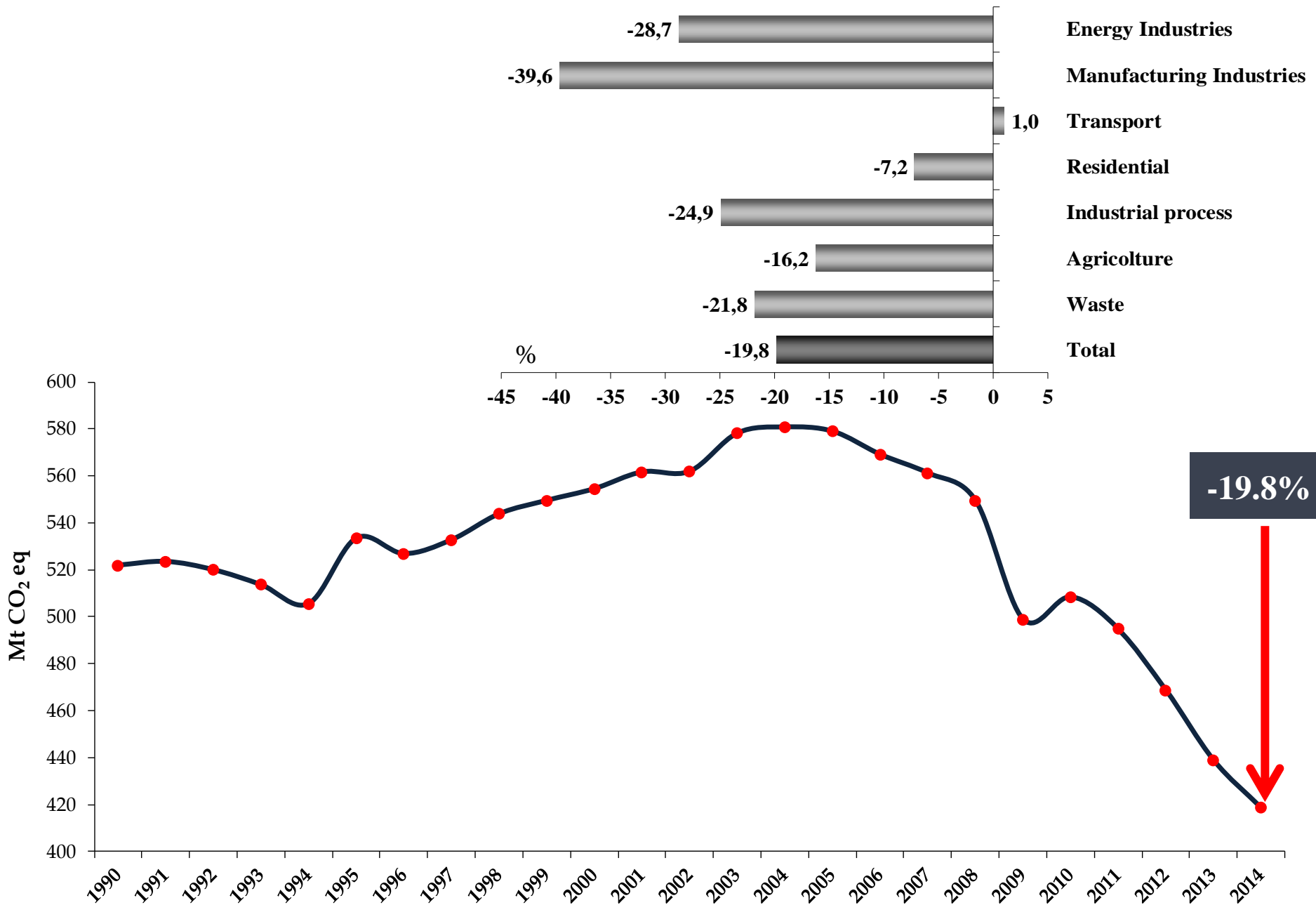
Budget law: information on commitments on GHG emissions

Syntesis of the information related to the Kyoto Protocol for the CP1

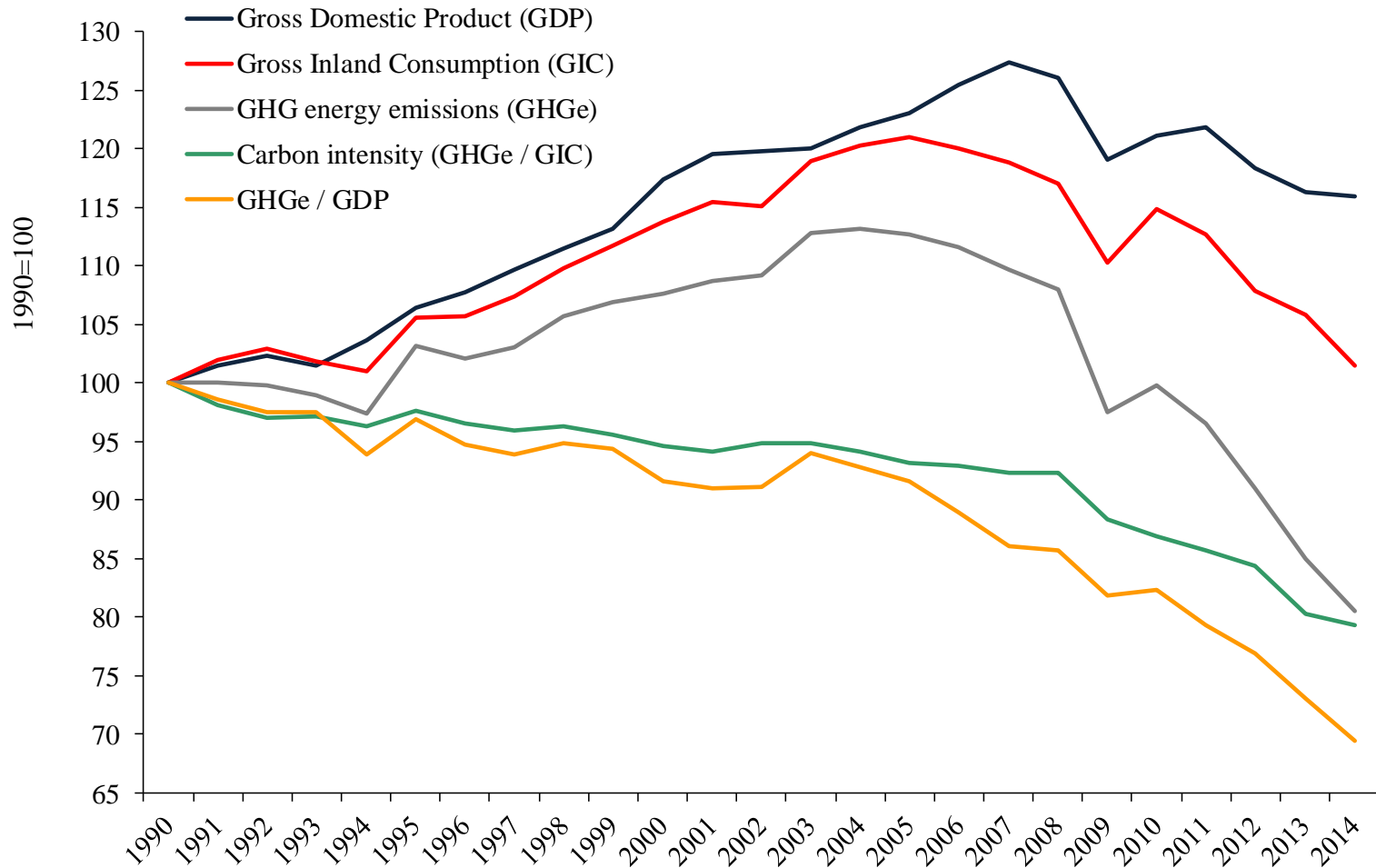
<i>Base year - CO₂, CH₄, N₂O, F-gases</i>								<i>1990</i>
<i>GHG emissions in the base year (t CO₂ eq.)</i>								<i>516,850,887</i>
<i>Reduction target for the CP1 (% of the base year)</i>								<i>93.5</i>
<i>Assigned Amount in accordance with art. 3.7 of the Kyoto Protocol</i>								<i>2,416,277,898</i>
<i>GHG emissions for the CP1 - 2008-2012 (t CO₂ eq.)</i>								<i>2,479,638,840</i>
<i>Total quantity of Kyoto Protocol units in the retirement account</i>								<i>2,479,638,840</i>
	AAUs	ERUs	RMUs	CERs	tCERs	ICERs	Total	
	2,258,521,514	46,715,521	75,276,599	98,993,939	131,267	0	2,479,638,840	
<i>Total quantity of Kyoto Protocol units requested to be carried over from CP1 to CP2</i>								
	AAUs	ERUs		CERs				
	795,601	1,108,946		2,138,152				

Since 2011 a report on the state of implementation of commitments to reduce greenhouse gases emissions, describing emission trend and projections, is prepared by the Ministry of the Environment in consultation with other relevant Ministers. **The report is annexed to the economy and financial document (DEF) to be annually approved by the Government.**

National greenhouse gas emissions trend



Energy-related and economic indicators



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

The “*Climate and Energy Package*”

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

→ 20% reduction of EU greenhouse gas emissions compared to 1990

- EU Emission trading system (ETS), which is 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 EU - Effort Sharing Decision (ESD) which assigns to Italy a reduction emission target of -13% in comparison to 2005

→ 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)

According with the 2009/28/EC Directive, the EU Member States are free to decide their own 'mix' of renewable sources, taking into account their different potentials

The 17% target refers to the share of renewable energy sources out of gross final consumption in 2020

The Directive 2009/28/EU has been transposed by the Legislative Decree N. 28 of 3rd March 2011. The decree defines the mechanisms, the incentives and the institutional, financial and legal tools necessary to achieve the 2020 targets regarding the renewable energy use. The decree also provides for a substantial reorganization of existing incentive schemes.

“Conto Termico” - Heating Account

The “Conto Termico” decree, implements the incentive scheme introduced by Legislative Decree 28/2011. This scheme supports small-scale projects of energy efficiency improvement and production of thermal energy from renewables.

- The measures are related to: building shells, replacement of heating plants with more efficient ones and replacement or installation of equipment using renewable energy
- Public administrations and private parties are eligible for this support scheme.
- The incentives are identified on the base of the energy saving achievable for the building and the amount of energy production from renewable sources and may be granted only for projects which do not benefit from other forms of government support
- Gestore dei Servizi Energetici (GSE) is the body in charge of implementing and managing the scheme, as well as of awarding financial incentives.

“Conto Energia” – Feed-in scheme

The Feed-in scheme 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.

This is a support system that provides constant compensation of electricity produced by solar photovoltaic and thermodynamic, for a fixed period (20 years for photovoltaic systems) through a tariff for all energy produced by the plants (feed-in premium).

White Certificates system

In December 2012 the so called “White Certificate Decree” was issued; the Decree is relative to the determination of national quantitative targets of energy savings that must be pursued by the distribution companies for electricity and gas from 2013 to 2016.

The decree defines the criteria, the conditions and the procedures to implement energy efficiency measures in end-use energy.

White Certificates, also known as “Energy Efficiency Certificates” (EEC), are tradable instruments and represent a policy aimed at promoting energy efficiency in all the end-use energy sectors: industrial, residential, service.

Gestore dei Servizi Energetici - GSE S.p.A. is the body in charge of implementing and managing the system

Energy performance in buildings

The implementation of the “Directive on the energy performance of buildings” (2002/91/EC) was an opportunity to introduce stricter energy requirements and to promote the diffusion of renewable energy sources in the building sector. The legislative decree 192/2005, transposing the directive into national law in 2006, was amended by legislative decree 311/2006 to strengthen the buildings thermal demand requirements.

Dir. 2010/31/EC recasts the *European Energy Performance of Buildings Directive* (EPBD) (transposed into national law with the decree 63/2013). This measure defines mandatory standards for public and new buildings. The transposition of this directive raises the requirement on new buildings and in the same time strengthen the control system.

The package of policies is aimed at improving energy efficiency through specific actions targeted to old and new buildings as well as appliances.

Energy Efficiency in the Civil sector- Tax deduction

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

The Budget Law for 2007 set the 55% tax deduction, further extended to 65% by the 2014 Budget Law.

The incoming Budget Law keeps the deduction at 65% up to 2021. The deduction may be increased till the 70% of the cost, if the actions affect more than 25% of building area, or to 75% if the work is aimed to increase the energy performance in winter and summer.

The tax deduction can be requested by all resident and non-resident taxpayers.

The eligible projects are:

- *Building shell*
- *Vertical opaque structures, horizontal opaque structures or windows, including blinds or shutters*
- *Installation of solar panels for the production of hot water*
- *Replacement of heating system*
- *Replacement of heating system with high efficiency heat pumps low-enthalpy geothermal systems*
- *Replacement of conventional water heaters with heat pump water heaters for the production of sanitary hot water*
- *Biomass heating system*

Policies in the Transport sector

Infrastructural measures: high capacity and high speed networks and tuning of regional networks for commuting and goods. Management measures regarding enhancement of road urban public transport network

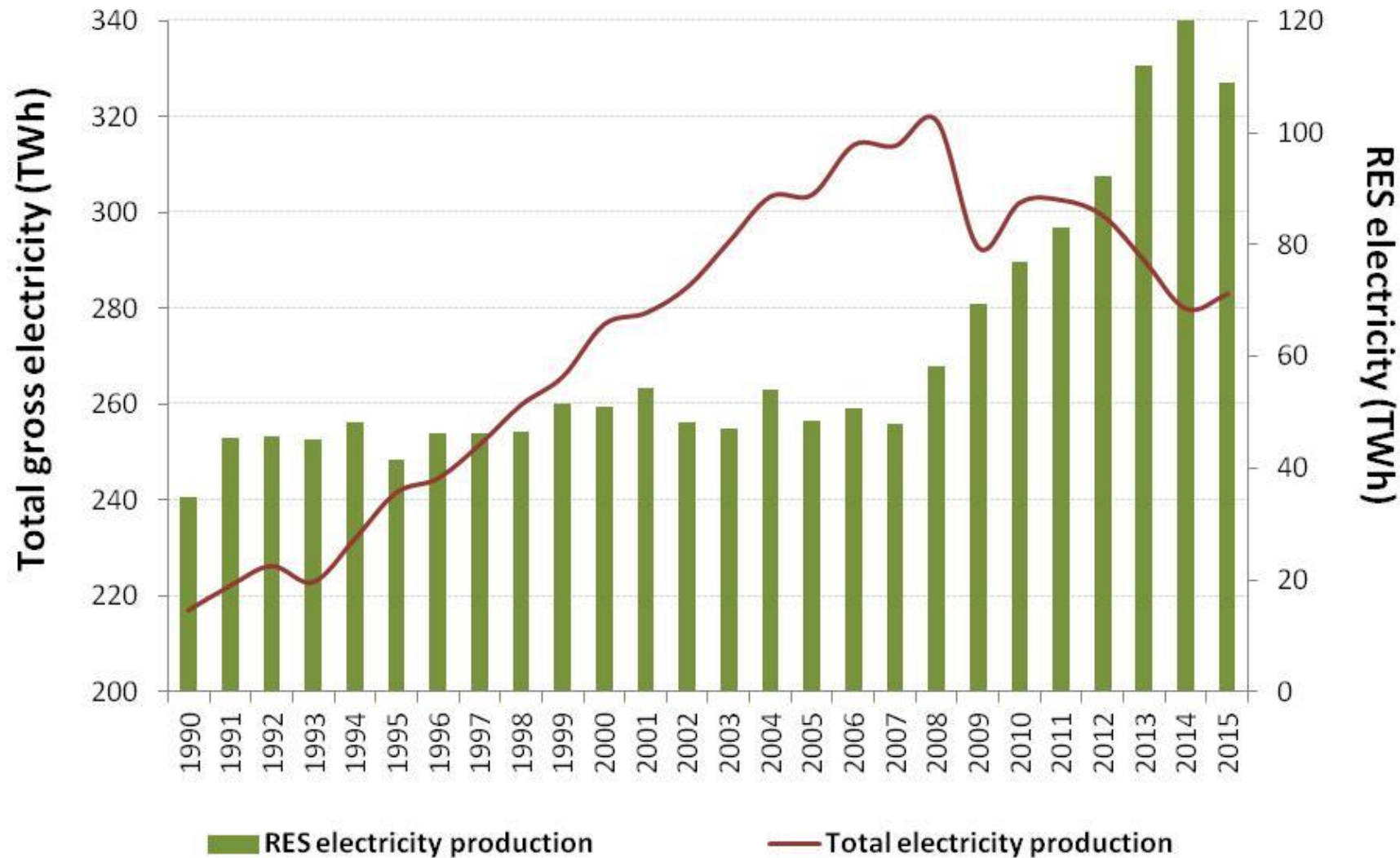
Intermodal measures: regarding shifting from private road traffic to public road traffic and shifting goods transport from the road to the sea and management measures regarding supporting efficiency in private road transport and improving road circulation in the urban areas

Fleet update: subsidies to renew older cars with new ones with average emissions of 120 CO₂/km have been in place (130 gCO₂/km engines efficiency and -10 gCO₂/km from additional reduction tools as biofuels or low carbon fuels); new limits are mandatory for all registered vehicles from 2015

Mandatory requirement of the Directive 2009/28/EC: 10% of use of biofuel for transport at 2020. Accelerated replacement of vehicle fleet with new vehicles including electric cars and expansion of biofuels

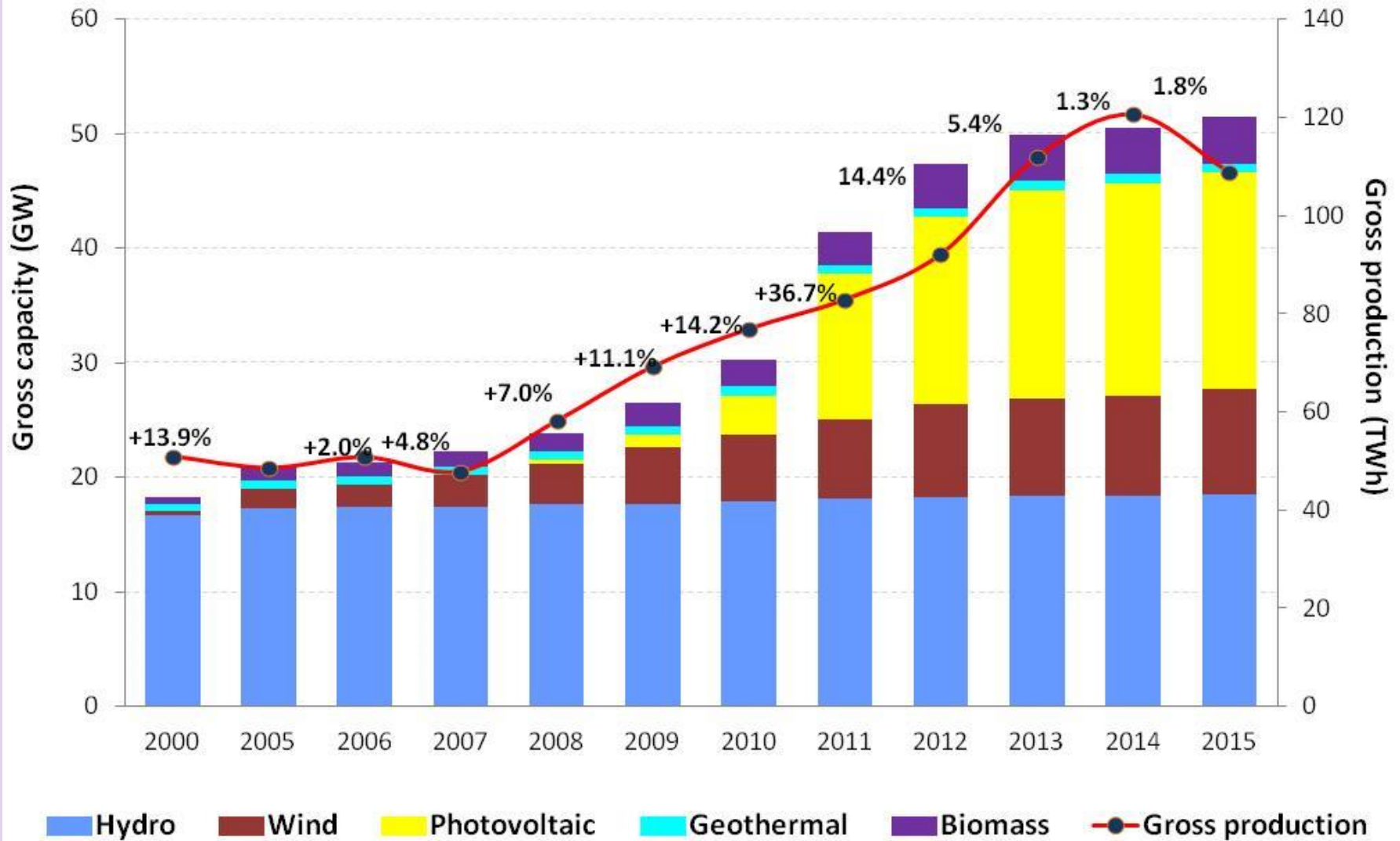
Total and RES electricity production

Renewable target



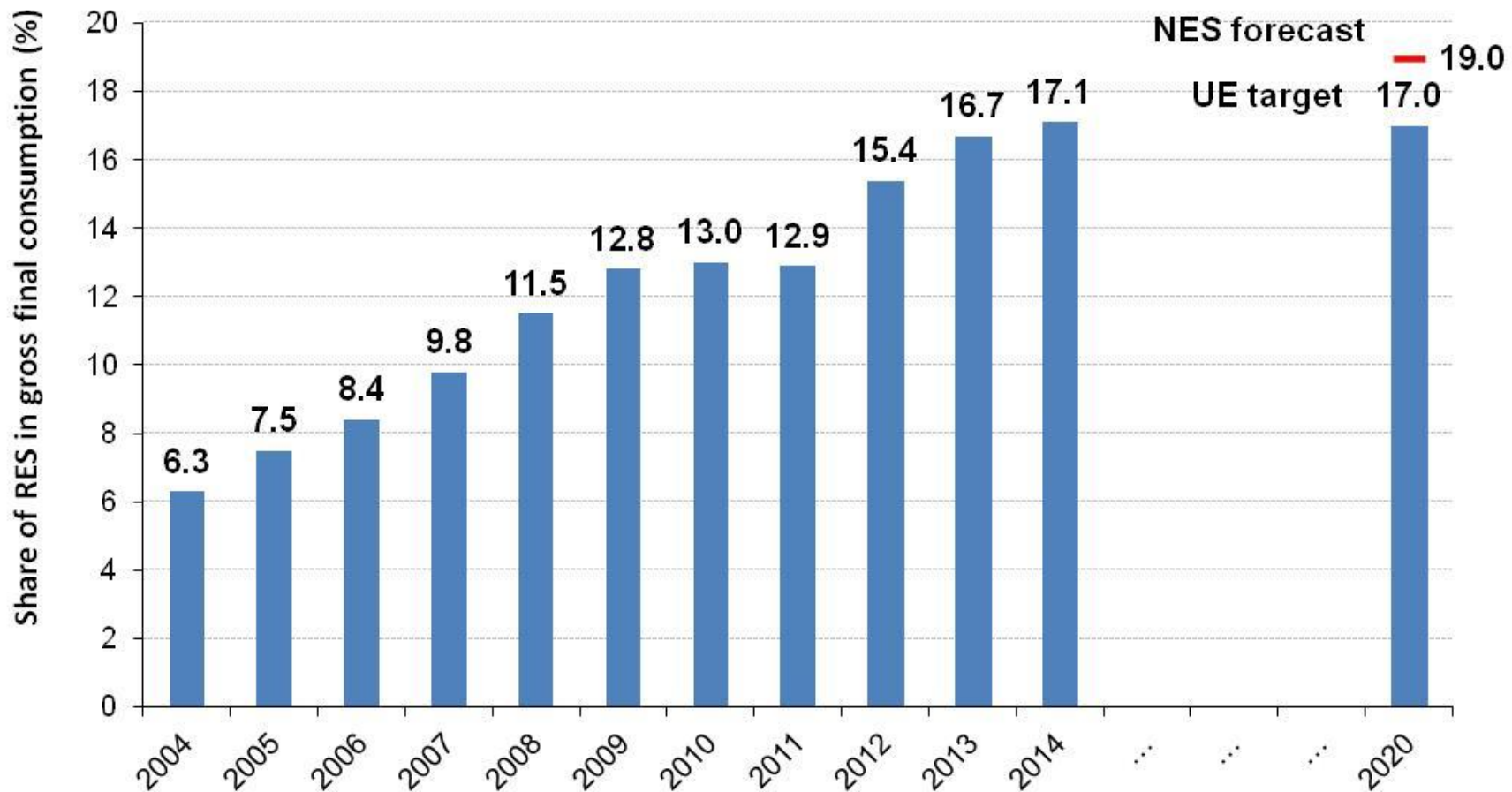
Renewable power capacity and production by RES

Renewable target



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

Renewable target



The target for the consumption of renewable energy assigned to Italy is 17% of gross final consumption.

In 2014 Italy exceeded its target and its average indicative trajectory in the *Renewable Energy Directive*. The *National Energy Strategy* expects to achieve the target of 19%.

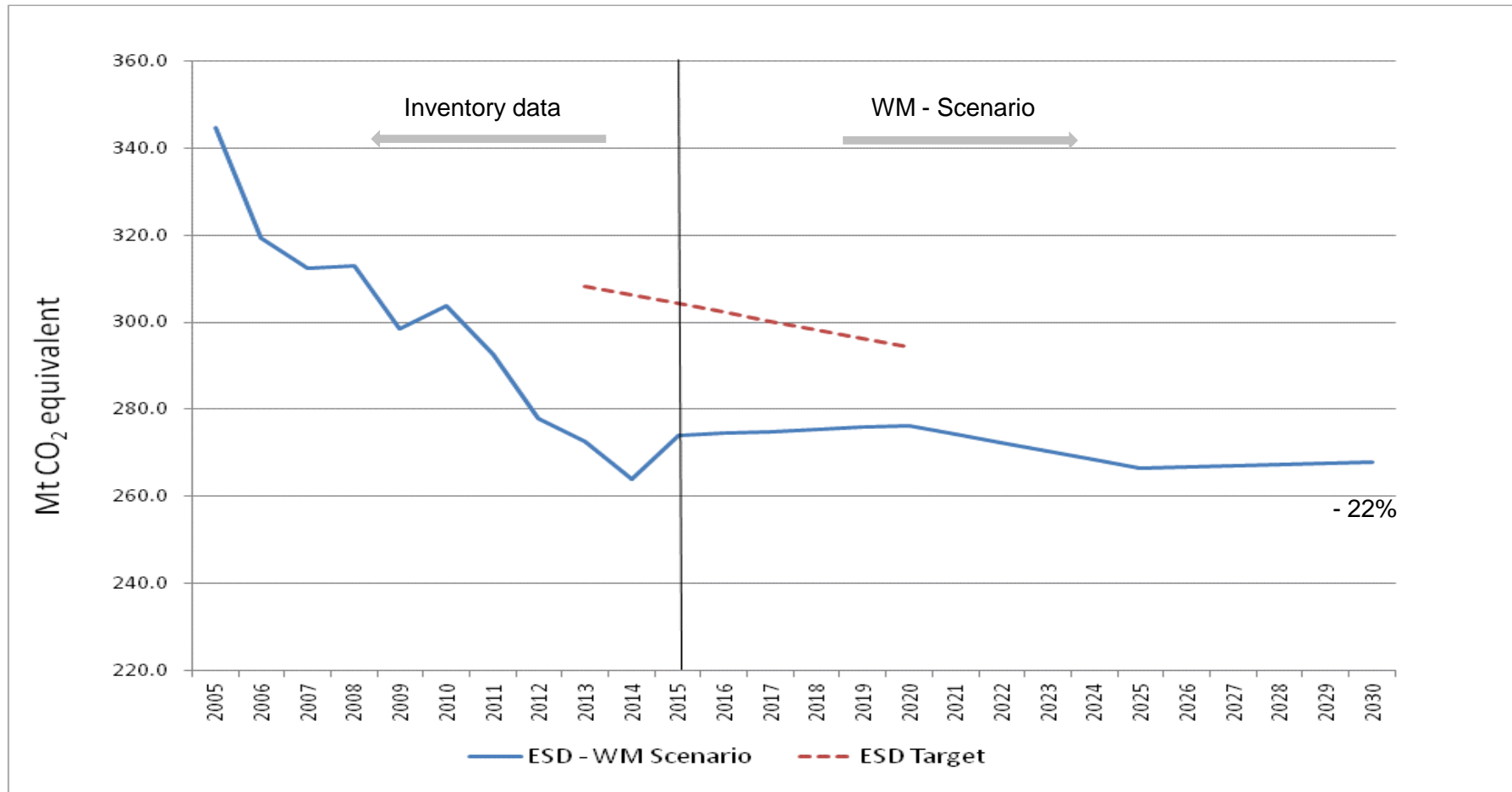
Non ETS 2013-2020 targets for Italy

20% GHG reduction target

	2013	2014	2015	2020
	MtCO ₂ eq			
Non ETS emissions – WEM Scenario	272,5	264,1	274,4	276,2
Italy non ETS Target - Decision n. 162/2013 and Decision 634/2013	308,2	306,2	304,2	294,4
<i>Difference to the target</i>	<i>-35,7</i>	<i>-42,1</i>	<i>-29,8</i>	<i>-18,2</i>

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

Emission projections for non ETS sectors



GHG emission projections show that Italy is in line with its target for the period 2013-2020. With existing measures Italy will reduce in 2030 its non-ETS emissions of 22% respect to 2005. Additional measures will be needed to reach the 2030 target especially in the transport and residential sector improving energy efficiency and the use of renewable energy sources.

Q&A received during the MLA

Estimations of mitigation impacts

The ex ante evaluation of impacts for each measure follows a methodology developed by ENEA available at this URL:

http://old.enea.it/produzione_scientifica/pdf_volumi/V2010_QSN.pdf

Current estimations of mitigation impacts measures (ex-post evaluations)

Every two years GSE issues the progress report under art. 22 of the 2009/28/EU directive where the ex post assessments of the most relevant national measures related to renewable energy use and energy efficiency are reported. For the evaluation of the impact of actually implemented measures please see the document “Italy’s Third Progress Report under Directive 2009/28/EC” attached and available at this URL: <https://ec.europa.eu/energy/en/topics/renewable-energy/progress-reports>. The progress report includes the measures taken in the preceding 2 years and/or planned at national level to promote the growth of energy from renewable sources. The results achieved by the measures are also reported as well as the net greenhouse gas emission savings due to the use of energy from renewable sources are reported.

Q&A received during the MLA

Planned policies and measures to promote electric vehicles

To date the relevant measures are only planned. A decree that will transfer in the Italian law the EU directive 2014/94/EU (DAFI directive) has been approved by the Government and it is under discussion in the Parliament. This decree fixes objectives of a network of filling station for electric and natural gas vehicles, in particular it foresees that all petrol/diesel filling stations that sell more than a certain quantity of fuels have to install, by 2022, infrastructure for refueling electric and CNG vehicles. There are provisions also for LNG filling stations for ships and trucks.

At the moment incentives for the purchase of electric / LNG/ CNG vehicles are not enforced or planned.

Plans to use nuclear energy

Italy has no running reactors since 1988 after the referendum vote, when Italy has rejected the production of energy by nuclear source. There is no planning for electricity generation by such source in the future

Q&A received during the MLA

Measures to achieve the biofuels EU target (10%)

The 2014 share of biofuels percentage in transport sector is 4.48%. In order to comply with the 2020 target of 10% in the next years biomethane production from biogas will be implemented. According the national legislation, an annual mandatory content of biofuels in fuels (%) has been set up, in the national decree DM 10 October 2014, as in the following:

Year	Q%	Q% of advanced biofuels
2015	5%	
2016	5.5%	
2017	6.5%	
2018	7.5%	1.2%
2019	9%	1.2%
2020	10%	1.6%
2021		
From 2022	10%	2%

Regarding plans to import biofuels or raw material please consider that the national rules fix the overall objective but then it is up to operators to decide whether use imported or national raw material and / or import directly biofuels. A major operator has already built infrastructure to produce high quality biofuels and it plan to further expand it.



Ministry for the Environment, Land and Sea

Thank you