



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



**ISPRA**  
Istituto Superiore per la Protezione  
e la Ricerca Ambientale



# Multilateral Assessment - Italy

Bonn – June 24, 2019



*Repubblica Italiana*

# Italy

- **Population:**  
60.4 m inhabitants  
(December 31<sup>st</sup>, 2018)



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As EU Member state, Italy undertakes climate change mitigation actions in the framework of the EU legislation.



The **Ministry of the Environment, Land and Sea** (IMELS) is the national focal point for the UNFCCC and coordinates the elaboration of climate change policies in cooperation with relevant ministries at the sectoral level.



DOCUMENTO  
DI ECONOMIA  
E FINANZA 2019

Since 2011, a report on the status of commitments to reduce GHG emissions, describing emission trends and projections, is prepared by IMELS in consultation with other relevant ministries and annexed to the **Economy and Financial Document (DEF)** to be annually approved by the Government.



**Financial support** and legislative instruments are identified through the Financial Law and allocated to central and local bodies.

# Targets: 2020

## EU TARGETS

(from the EU "Integrated Energy and Climate Change Package", European Council, 2007)

→ **20%** reduction of EU GHG emissions compared to 1990

**20%** reduction in energy use by improving energy efficiency

**20%** share of energy consumption from renewable energy



### ETS sectors

- -21% compared to 2005

### Non-ETS sectors

- -10% compared to 2005

### LULUCF

- not included in 2020 targets



### EU Decision 406/2009/EC «Effort Sharing Decision» (ESD)

- **ESD** set binding annual GHG emission reductions by Member States (2013-2020).
- **Italy: 13%** GHG emissions (non-ETS) reduction target compared to 2005

# Targets: 2030

## EU TARGETS

from the «2030 EU Climate & Energy Framework», European Council, 2014

→ **At least 40%**  
reduction of EU GHG  
emissions compared to  
1990

**At least 27%** of energy  
efficiency  
improvements

**At least 27%** of energy  
consumption from  
renewable energy



EU **Directive 2018/2002**  
improved the EU target to  
**32,5%**

EU **Directive 2018/2001**  
improved the EU target to  
**32%**

### ETS sectors

- -43% compared to 2005

### Non-ETS sectors

- -30% compared to 2005

### LULUCF

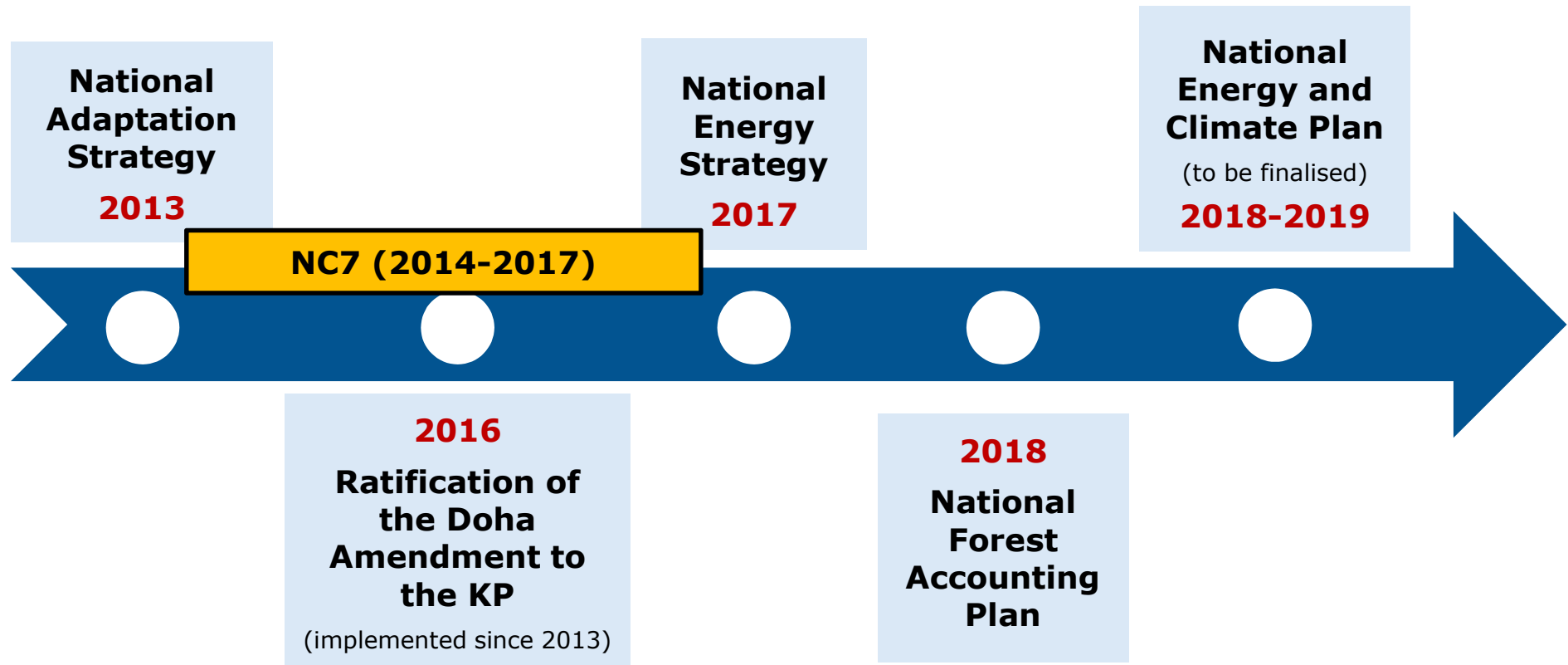
- No-debit rule



### EU Regulation 2018/842 «Effort Sharing Regulation» (ESR)

- **ESR** set binding annual GHG emission reductions by Member States (2021-2030).
- **Italy: 33%** GHG emissions (non-ETS) reduction target compared to 2005

# Policy framework: recent strategies and plans



## Under preparation:

- **Long-term Low Carbon Strategy** (by 2019)
- **National Adaptation Plan**

# Trends: national GHG emissions

## SECTORIAL

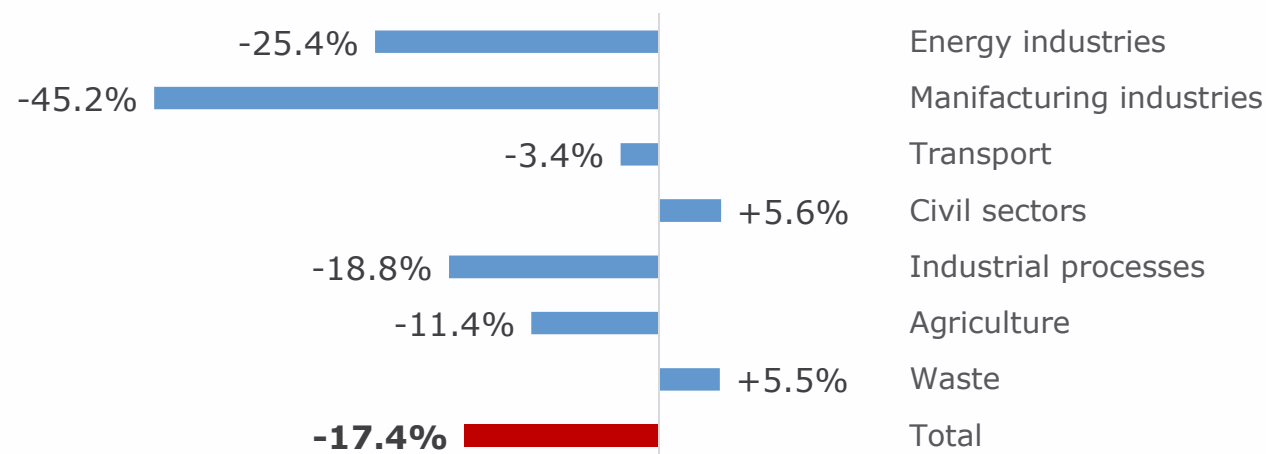
### Sectors covered

**Energy, Transport <sup>(a)</sup>,  
Industrial Processes <sup>(b)</sup>,  
Agriculture, Waste**

With the ratification of the Doha Amendment to the KP, Italy elected **cropland & grazing land management activities**.

<sup>(a)</sup>Transport is a subsector of the energy sector. <sup>(b)</sup>Industrial processes also refer to solvent & other product use.

Change in Italy's GHG emissions by sector (1990-2017)



The civil sector has a high degree of inter-annual variability due to meteorological and climate conditions.

## TOTAL

### Gases covered

**CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O,  
HFCs, PFCs, SF<sub>6</sub>,  
Other gases**

**Base  
year**

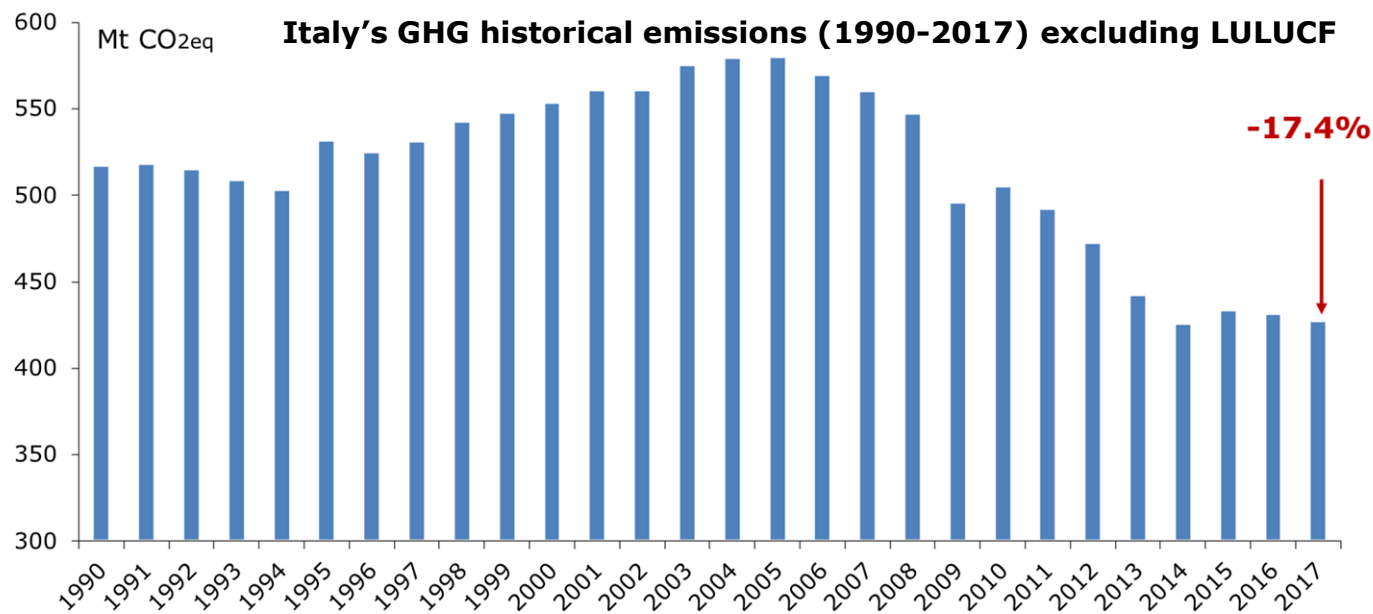
1990

Global warming potential (GWP) values are from the IPCC 4<sup>th</sup> Assessment Report.

### Sources:

Italian Greenhouse Gas Inventory 1990-2019 – National Inventory Report 2019

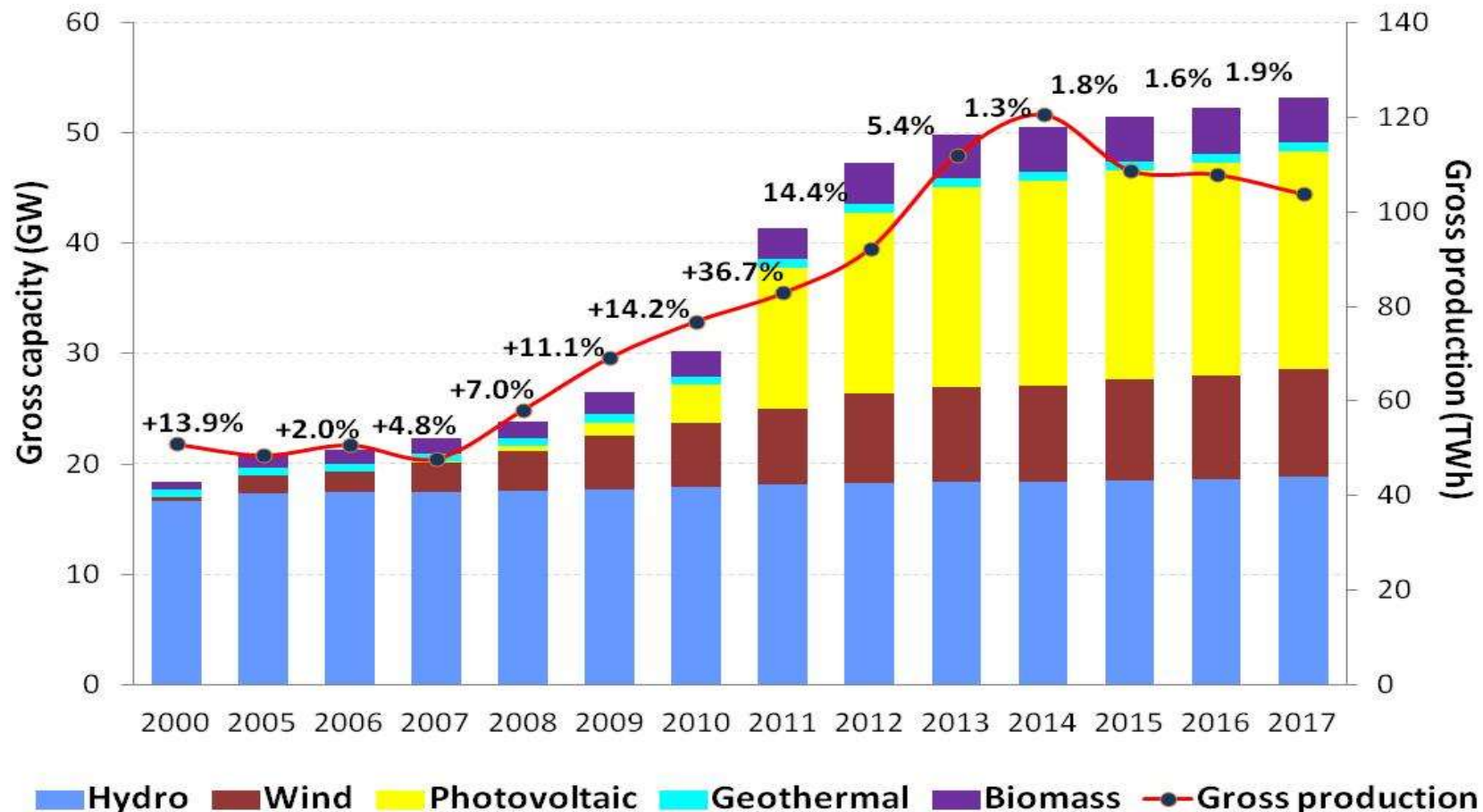
Italy's GHG historical emissions (1990-2017) excluding LULUCF



# Trends: renewable energy sources

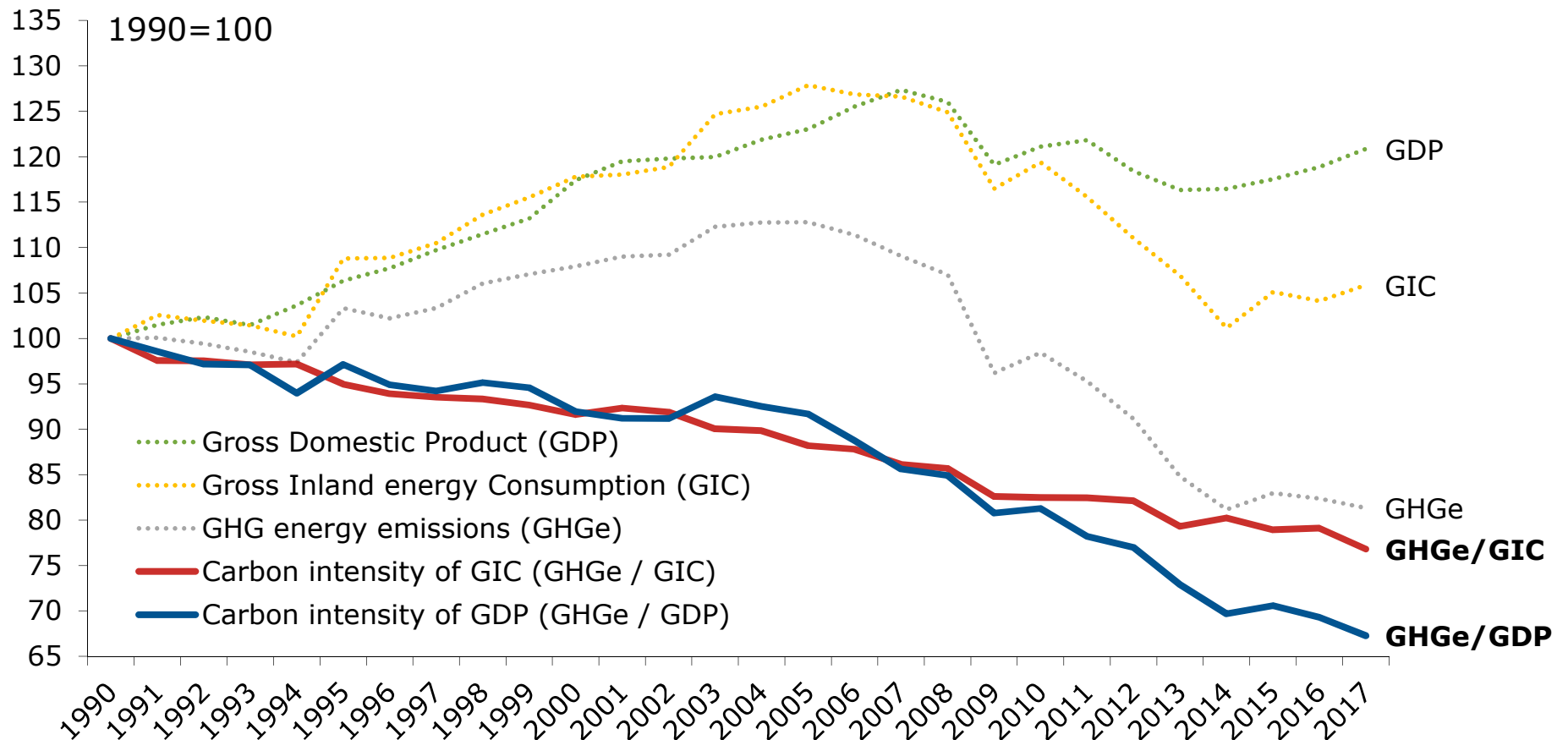
- **Gross capacity from renewable energy sources has continued to increase** year by year as shown by percentages, with photovoltaic and wind sources being the major drivers for such growth.

## Renewable power capacity and production by RES



# Trends: economic and energy-related indicators

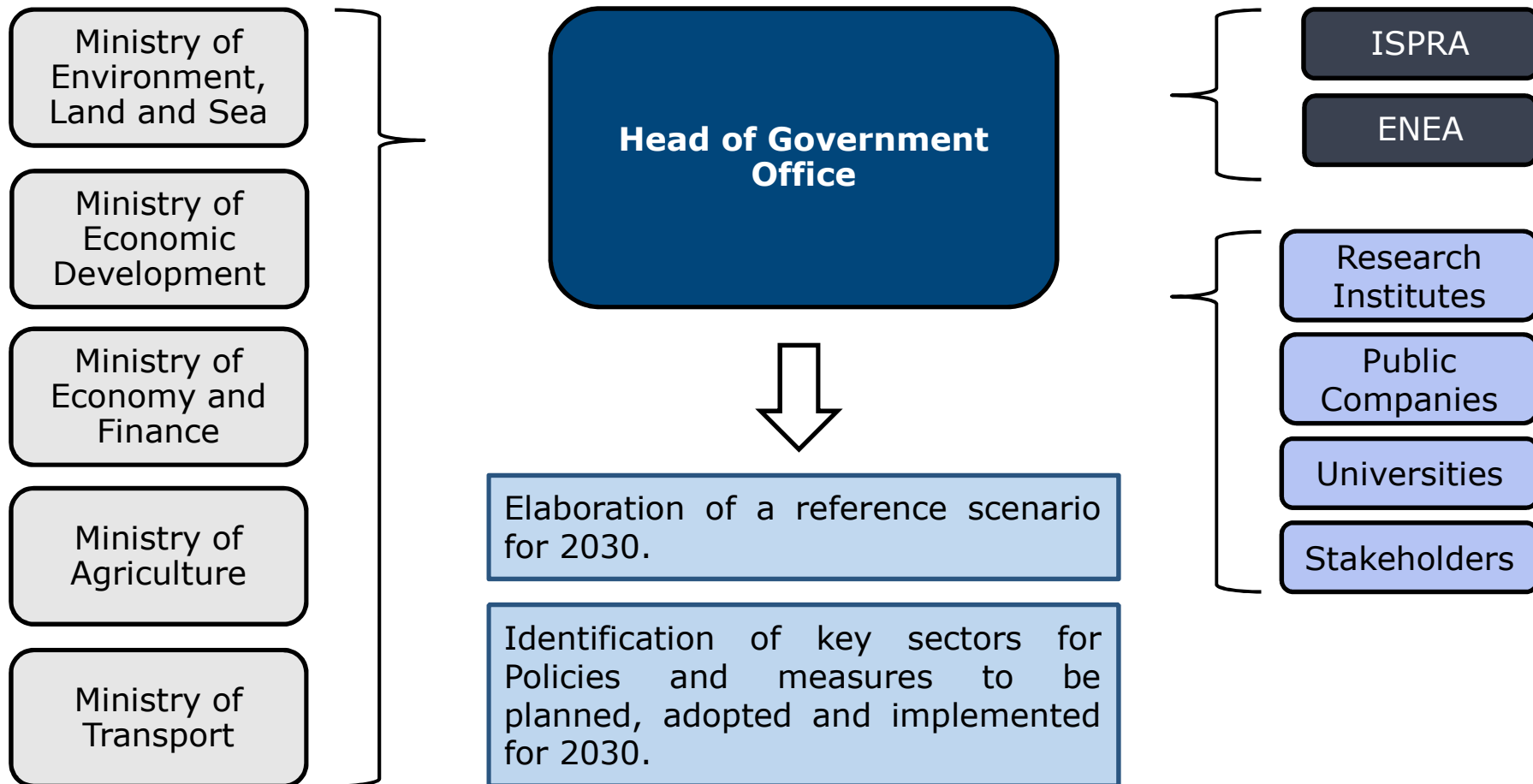
- In the 90s, CO<sub>2</sub> emissions essentially mirrored energy consumption.
- From 2000, a **decoupling** between the curves occurred, as a result of the substitution of fuels with high carbon contents with natural gas in energy production and industry and, in the last years, the increase in use of renewable sources which have led to a notable reduction of carbon intensity (CO<sub>2</sub>/energy consumption).





# National System: institutional arrangements

## Interministerial working group for climate change policies



# PaMs: renewable energy policies and measures

## Energy mix of renewable sources

- **Legislative Decree 28/2011** transposed **Directive 2009/28/EC** on renewables, defining mechanisms, incentives and institutional, financial and legal tools necessary to achieve Italy's 2020 target.

## Supporting renewable energy production and energy efficiency improvements («Thermal Account» decree)

- The decree implements the incentive scheme introduced by **Legislative Decree 28/2011**. Incentives are identified on the basis of the amount of energy production from renewable sources and the energy saving achievable for the building, and may be granted only for projects (building shells, replacement of heating plants with more efficient ones and replacement or installation of renewable energy equipment) which do not benefit from other forms of government support. Both public and private parties are eligible.

## Supporting electricity production by renewables («Fifth Feed-in Scheme », 2012 Ministerial Decree)

- It provides constant compensation for electricity produced by solar photovoltaic and thermodynamic technologies for a fixed period (20 years for PV systems), through a tariff for all energy produced by plants (feed-in premium).

# PaMs: energy efficiency policies and measures

## Promoting energy efficiency in energy end-use sectors

(«Ministerial Decree 20th July 2004» and amendments)

- The Decree introduced the **White Certificates Scheme**, which provides for the issue of “white certificates”, tradable instruments aimed at promoting energy efficiency in industrial, residential and service sectors. “Obligated parties” (electricity distributors and natural-gas distributors) are obliged to achieve annual national quantitative energy efficiency improvement targets; “Voluntary parties” are eligible for the white certificates scheme and may submit energy efficiency projects.

## Improving energy performance of buildings

(«Legislative Decree 192/2005» and «Legislative Decree 63/2013»)

- The 2005 Decree transposed **Directive 2002/91/EC (EPBD)**, introducing stricter energy requirements and promoted renewable energy sources in the building sector. The new 2013 Decree transposed amendments introduced by **Directive 2010/31/EC**, which increased domestic requirements for new buildings and strengthened the control system.

## Tax deductions for energy efficiency interventions

- **1998 Budget Law** introduced the possibility of deducting from IRPEF (personal income tax) 36% of the costs incurred for restructuring dwellings and common parts of residential buildings. **2007 Financial Law** introduced a tax deduction (extended up to **2018**) ranging between 50-65% of the intervention costs.

# PaMs: transport policies and measures

## Regulatory measures

- **Regulation (EC) No 443/2009** establishing CO<sub>2</sub> emissions performance requirements for new passenger cars at 130gCO<sub>2</sub>/km at EU level; limits are mandatory from 2015.
- Mandatory requirement from **Directive 2009/28/EC**: 10% of use of biofuels for transport by 2020.
- **Legislative Decree n.257 of 16<sup>th</sup> December 2016**, transposing **Directive 2014/94/EU** on alternative fuels («DAFI»), setting out minimum requirements for the building-up of recharging points for electric vehicles and refueling points for natural gas (LNG and CNG) and hydrogen.

## Planning measures

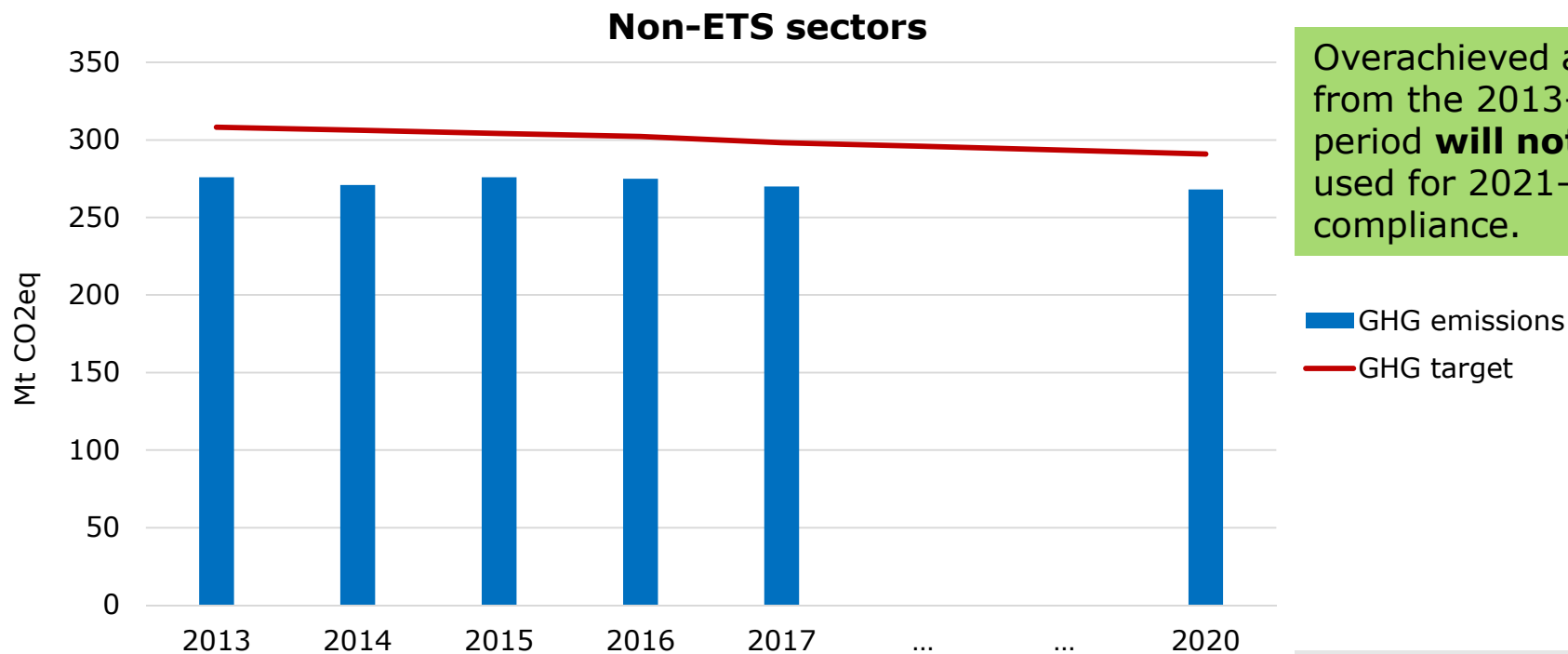
- Infrastructural measures to increase high capacity and high speed networks;
- Intermodal measures to shift from private road traffic to public road traffic, as well as to shift goods transport from the road to the sea;
- Management measures regarding supporting efficiency in private road transport and improving road circulation in urban areas.

## Economic measures

- Accelerating the modernization of the vehicle fleet with new vehicles: CNG cars, LPG cars, CNG vans.
- Accelerating the modernization of the car vehicle fleet with electric cars.

# Projections: GHG target (2020), non-ETS sectors

**Italy is well on track** to meet its 2013-2020 targets allocated under the **EU Effort Sharing Decision (ESD)**.



Overachieved amounts from the 2013-2020 period **will not** be used for 2021-2030 compliance.

Italy	2013	2014	2015	2016	2017	...	2020
	<b>Mt CO<sub>2</sub> eq</b>						
Non-ETS emissions <sup>1</sup>	276	271	276	275	270	...	268
Non-ETS targets <sup>2</sup>	308	306	304	302	298		291
Distance to the target	-32	-35	-29	-27	-28		-23

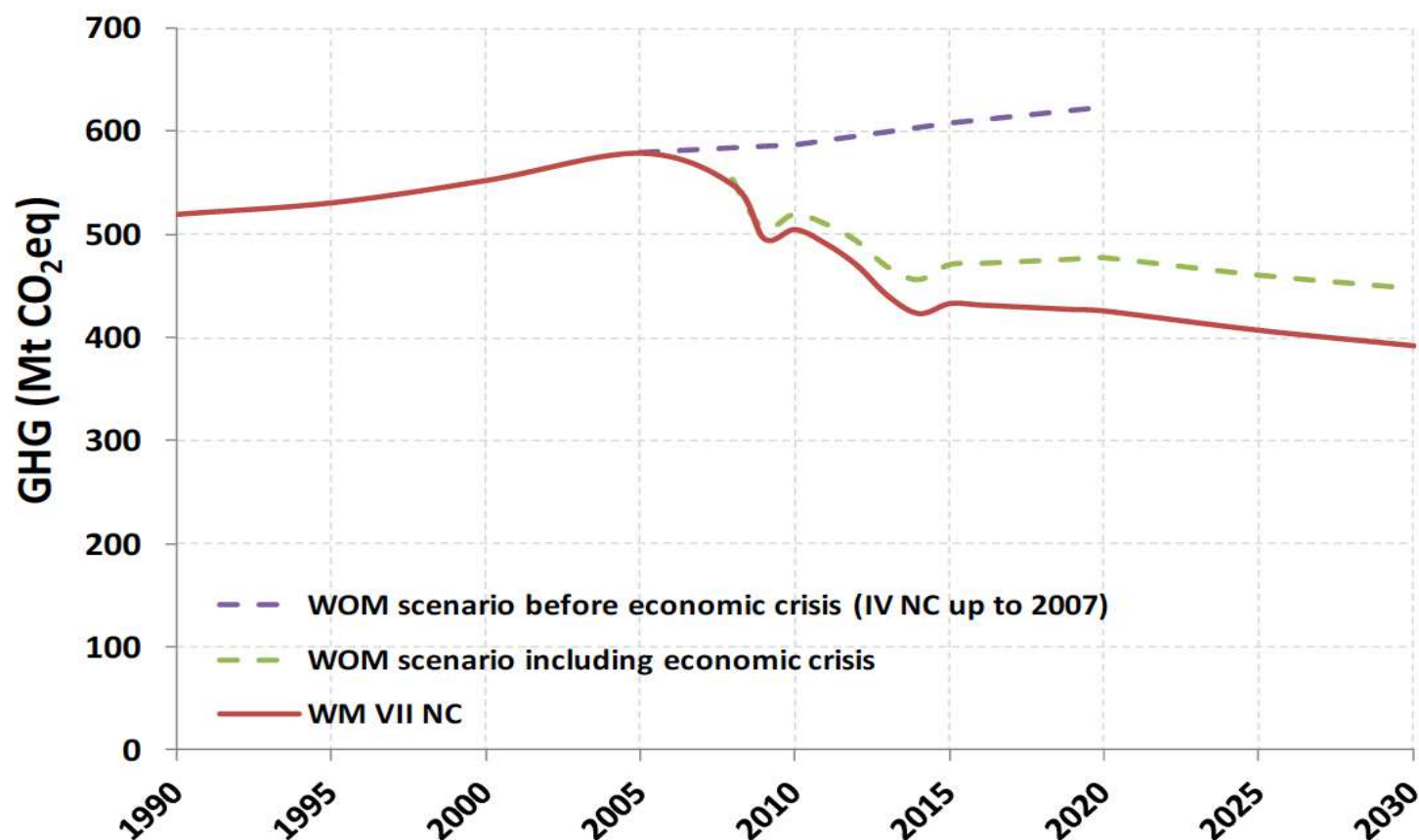
<sup>1</sup> WM Scenario. <sup>2</sup> Decision 162/2013 and amendments as for Decision 634/2013 and Decision 2017/1471.

- 2013-2017 data are historical data as in the latest GHG inventory submitted to the European Commission in March 2019.

- 2020 projections are from the reference scenario as communicated to the European Commission in April 2019 according to Regulation 525/2013.

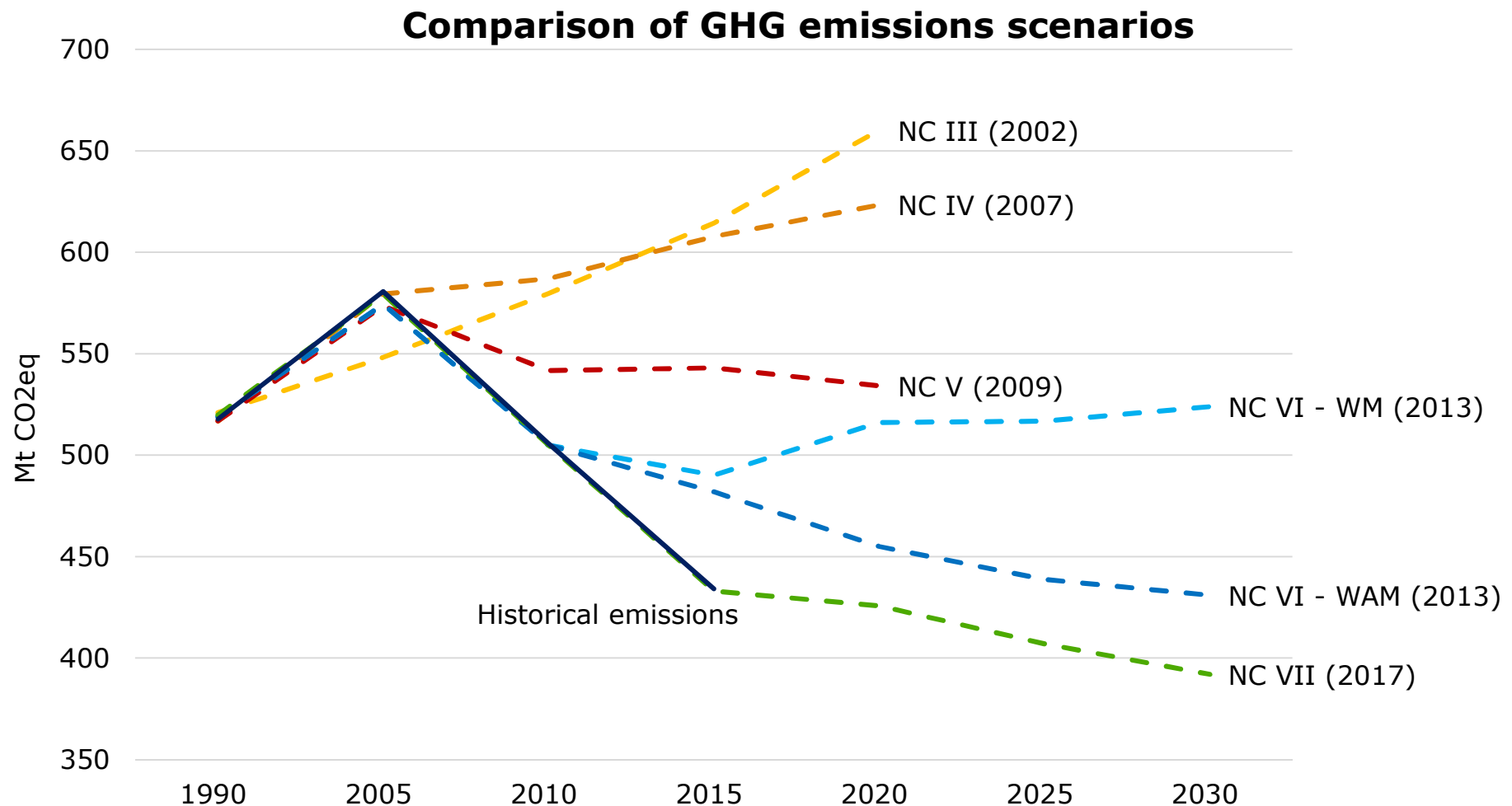
## Projections: GHG targets (2020-30), non-ETS sectors

- Different scenarios show the structural effect of policies and measures beyond the influence of the economic crisis.
- Under its effort sharing commitments, **Italy is in line with its 2020 target**, and additional measures that will be included in the upcoming National Climate and Energy Plan are expected to put the country **in line with 2030 targets as well**.



# Projections: comparison of GHG emissions scenarios

- **Italy has achieved greater results** compared to scenarios: historical emissions have been lower than previously projected.
- New scenarios are **further projecting lower GHG emission levels.**



# Q&A: Compilation and preparation of the national GHG inventory

**Question:** *Are there any challenges in the compilation & preparation of the national GHG inventory faced by Italy? If yes, could Italy provide more information on them and how she considers to address them in the short and/or long-term?*

**Answer:** ISPRA is responsible for the implementation of the National System both for the emission inventory and for projections. Since its institution, the National System has guaranteed the timeliness of preparations and submissions.

## GHG inventory

- **Legislative Decree n. 51/2008**
- ISPRA is in charge of the development and compilation of the national GHG inventory; IMELS is responsible for the endorsement of the inventory and for its official communication to the UNFCCC and EC Monitoring Mechanism.

## Policies and measures, Projections

- **Law n. 79/2016** («Ratification of the Doha Amendment to the KP»)
- ISPRA is responsible for the National System and, in cooperation with IMELS, it collects all data and information from the competent Ministries in accordance with national Decree «9th December 2016».

The main challenge is to continue to guarantee the necessary resources in terms of staff and knowledge sharing. The gradual introduction of new personnel and adequate training should allow to properly address the issue in the medium and long term.



# Q&A: Use of biofuels

## Questions:

- *Is the main source of these biofuels projected to be domestically produced or imported?*
- *Is the source of the biofuels likely to be impacted by Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (e.g., concerns over indirect land use-change impacts)?*

## Answer:

- In 2017, 9.5% of raw material for sustainable biofuels production was produced in Italy. Raw materials mainly come from Indonesia (37%), Spain (14.4%) and France (6%). Broadly, 60% of raw materials used for biofuels production come from EU countries while the remaining 40% comes from non-EU countries.
- Within the target for biofuels in the transport sector, more space will be given to the use of “advanced” biofuels produced from recovered materials and waste, according to the circular economy principles, thus giving a boost to the national production of bio-based fuels.
- Among those, it is worth mentioning bio-methane, which is mainly produced on the national territory and for which Italy has set an incentive scheme (Ministerial Decree March, 2<sup>nd</sup> 2018) in order to accelerate its deployment.

# Q&A: EV charging infrastructure

## Question:

- *How does Italy plan to promote and support the development of charging infrastructure for electric vehicles?*

## Answer:

- The overall policy framework to implement the plan for the development of alternative fuels infrastructure is represented by the DAFI directive 2014/94/EU, which was transposed into national legislation.
- According to the DAFI directive the Ministry of Infrastructures and Transport has adopted in the 2015 the PNire (National Plan for Electric charging Infrastructure), setting the necessary steps to develop the infrastructure and allow the penetration of electric vehicles.
- Some examples of policies set up in order to facilitate and support the development of charging infrastructure are represented by:
  - a simplification of the permitting documentation for the realization of charging infrastructure in private buildings and areas;
  - the development and financing of a Strategic National Plan for public transportation, which foresees 3.7 billion euros of public expenditure for the renewal of both vehicles for public transportation and for the development of the infrastructure for alternative fuels.

## Q&A: coal phase-out

### **Question:**

- *Could Italy please provide an update on the status of its envisaged gradual coal phase out, including any planned or implemented policies and strategies?*

### **Answer:**

- The setting of the pathway for the coal phase-out is on-going taking into account specific circumstances including permits procedures, security of supply, decommissioning and social and economic impacts.
- The Ministry for Economic Development, the Ministry of Environment, the manager of the national power grid (TERNA) as well as representatives from coal power plants owners meet periodically in order to define the necessary steps for the implementation of the “coal phase out” provision, through the definition of a time schedule until 2025.
- In particular, the manager of the national power grid (TERNA) is expected to provide a detailed estimate of the capacity to be substituted zone by zone in order to ensure security of supply.

*Thank you for your attention*



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