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Assessment of climate change policies in the context of the European Semester

Country Report: Italy



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The report provides an overview of current emission trends and progress towards targets as well as policy developments that took place over the period from February 2013 to November 2013.

Please feel free to provide any comments or suggestions to the authors through the contacts listed above.

Short summary

Background: The new National Energy Strategy, approved in March 2013, sets the target to reach and surpass the national climate and energy targets at reduced costs and higher security of supply with an emphasis on "green growth" elements due to its implications for jobs and economic improvement in the energy sector. It lists a number of measures of which most aim at strengthening and enforcing existing instruments.

Non-ETS emission reduction target: The 2020 target is -13% (compared to 2005) and non-ETS emissions were reduced by 13% between 2005 and 2011. According to the latest available projections, emissions will increase again after 2015 so that the change over 2005-20 would only reach -9 % and the target would be missed.

Key indicators 2011:

GHG emissions	IT	EU
ESD EU 2020 GHG target (comp. 2005)	-13%	
ESD GHG emissions in 2011 (comp.2005)	-13%	-9%
Total GHG emissions 2012 (comp.2005)	-19%	-12%
GHG emissions/capita (tCO₂eq)	8.1	9.0

^{→ 10%} lower per capita emissions than EU average

GHG emissions per sector	IT	EU
Energy/power industry sector	28%	33%
Transport	24%	20%
Industry (incl. industrial processes)	19%	20%
Agriculture (incl. forestry & fishery)	8%	12%
Residential & Commercial	16%	12%
Waste & others	4%	3%

[→] Energy/power industry sector followed by Transport, Industry and Residential&Commercial

Energy	IT	EU
EU 2020 RES target	+17%	
Primary energy consumption/capita (toe)	2.9	3.4
Energy intensity (kgoe/1000 €)	121	144
Energy to trade balance (% of GDP)	-3.8%	-3.2%

^{→ 15%} **lower** per capita consumption, 16% **lower** energy intensity, contribution of energy to trade **balance above** EU average

Taxes	IT	EU
Share of environmental taxes (% of GDP)	2.8%	2.4%
Implicit tax rate on energy (€/toe)	211	184

[→] Higher share of environmental taxes and 15% higher implicit tax rate on energy than EU average.

Key policy development in 2013: Italy introduced a new tax incentive for energy efficiency measures. Certain energy refurbishment measures can now count on a 65% tax deduction. Also, first steps were taken to strengthen the white certificate scheme by expanding the scope to include seven new types of works to improve energy efficiency. The major renewable energy support scheme *Conto Energia* reached its cap of €6.7 billion in June 2013. However, the Italian Revenue Agency classified PV systems as "projects aimed to achieve energy savings" which entitles them to benefit from tax deductions. Lump sum incentives for the purchase of cars powered by natural gas, electricity and hybrid engines have been introduced. Moreover, a target to increase rail freight transport from currently 6% to 24% of total transport has been implemented.

Key challenges: Currently there is no explicit carbon tax in place and the existing environmental taxes do not sufficiently reflect environmental externalities. For example, excise duties on fuels vary greatly among fuels and users and do not reflect the corresponding fuel's carbon impact. Also vehicle taxes do not fully take into account emission levels, especially in freight transport. Without the *Conto Energia* scheme the major support for renewable energy is missing. The current tax deductions for small PV and the guaranteed prices under the *Ritiro Dedicato* scheme are unlikely to create the necessary incentives for a substantial renewable expansion.

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I Background on climate and energy policies

Climate and energy are issues discussed frequently in Italian politics and media, though the focus is more on energy than on climate change. Renewable energy is a clear priority, as is promotion of energy efficiency in all parts of the economy.

The primary development in this area is currently Italy's new National Energy Strategy which was approved in March 2013. The strategy aims to bring Italy in a position to surpass Europe's 2020 targets with respect to renewables and efficiency, emphasising an agenda that can be characterized as having "green growth" elements due to its implications for jobs and economic improvement. The specific goals are energy cost reduction, reaching and surpassing all European climate change and energy goals, higher security of supply and industrial development in the energy sector.

The Strategy also sets a target for energy efficiency for 2020, and first implementing measures were taken in 2013 such as the reinforcement and expansion of the existing white certificate scheme (energy efficiency certificates) and the prolongation of tax deduction for energy efficiency works in buildings beyond its intended phase-out date. Furthermore, new incentive schemes have been made available for thermal installations and for the purchase of low-emission vehicles.

2 GHG projections

Background information

Italy is the third biggest emitter of GHG in the EU. In 2011, Italy emitted 488.8 Mt $\rm CO_2eq$ (UNFCCC inventory 2011, data excluding Land Use, Land-Use Change and Forestry - LULUCF), 6% less than in 1990. Energy use, energy supply and transport in the order accounted for the highest share of emissions. Emissions from energy use and supply decreased slightly since 1990 because oil was increasingly substituted by gas, energy efficiency improved, and the economy shifted to less energy-intensive industries. Emissions in the transport sector increased by 11% between 1990 and 2011 due to a growing number of vehicles. Emissions from industrial processes and agriculture both decreased by roughly 17% since 1990, reflecting reduced chemical production, reduced animal population, and reduced use of nitrogen fertilizer (EEA 2012, UNFCCC 2012). From 2011 to 2012 GHG emissions are expected to further be reduced to an all time low since 1990 as in all important sectors (energy supply, energy use and transport) emission reductions are expected to be realised (EEA 2013b and c).

Progress on GHG target

There are two sets of targets to evaluate: 1) the Kyoto Protocol targets for the period 2008-12 (which has just ended) and 2) the 2020 targets for emissions not covered by the EU ETS.

Under the Kyoto-Protocol the emission reduction target for Italy for the period 2008-2012 has been set to minus 6.5 % based on 1990 levels. An evaluation of the latest complete set of greenhouse gas data (for the year 2011; there is only preliminary data for 2012) shows that Italy's emissions have decreased on average by 5.4% compared to base year

emissions (EEA 2013a). This shows that Italy may not meet its Kyoto target through domestic emissions reductions directly.

By 2020, Italy needs to reduce its emissions not covered by the EU ETS by 13% compared to 2005, according to the Effort Sharing Decision (ESD) (1). The latest data for 2012 suggests that Italy is on track at present to meet the Annual Emissions Allocation (2) for the year 2013 with a margin of 8 percentage points. However, national projections (EEA 2013b) show that the country will fail to meet its 2020 target by about 3.5 percentage points with existing measures. Under the scenario with additional measures Italy is expected to meet the target with a margin of 5 percentage points (see **Fehler! Verweisquelle konnte nicht gefunden werden.**).

Table I: GHG emission developments, ESD-targets and projections (in Mt CO2eq)

						ESD ta	arget**	2020 Proj	ections***
	1990	2005	2010	2011	2012*	2013	2020	WEM	WAM
Total	519.0	574.4	500.3	488.8	464.6				
Non-ETS		340.6	308.8	298.8	283.2	310.1	286.7	299	270
(% from 2005)					-17%	-9%	-13%	-9%	-18%
Energy supply	137.2	160.6	133.2	131.2					
(% share of total)	26%	28%	27%	27%					
Energy use									
(w/o transport)	165.5	174.8	155.0	147.4					
(% share of total)	32%	30%	31%	30%					
Transport	103.1	127.5	118.9	117.9					
(% share of total)	20%	22%	24%	24%					
Industrial									
processes	38.4	42.6	31.8	31.6					
(% share of total)	7%	7%	6%	6%					
Agriculture	40.7	37.4	33.7	33.5					
(% share of total)	8%	7%	7%	7%					

Source: UNFCCC inventories; EEA (2013b); Calculations provided by the EEA and own calculations.

** The ESD target for 2013 and for 2020 refer to different scopes of the ETS: the 2013 target is compared with 2012 data and is therefore consistent with the scope of the ETS from 2008-2012; the 2020 target is compared to 2020 projections and is therefore consistent with the adjusted scope of the ETS from 2013-2020. 2005 non-ETS emissions for the scope of the ETS from 2013-2020 amounted to 330 Mt CO_2 eq. *** Projections with existing measures (WEM) or with additional measures (WAM).

 $\label{legend} \textit{Legend for colour coding: green = target is being (over)} \textit{achieved; orange = not on track to meet the target}$

Total greenhouse gas emissions (GHG) and shares of GHG do not include emissions and removals from LULUCF (carbon sinks) and emissions from international aviation and international maritime transport.

lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:090:0106:0110:EN:PDF

^{*} proxies for 2012

Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments by 2020.

² Commission decision of 26 March 2013 on determining Member States' annual emission allocations for the period from 2013 to 2020 pursuant to Decision No 406/2009/EC of the European Parliament and of the Council. Online available at: http://eur-

National projections of GHG emissions up to 2020 need to be prepared by the Member States in accordance with the EU Monitoring Mechanism (3) every two years, and the latest submission was due in 2013. The projections need to be prepared reflecting a scenario that estimates total GHG emissions reductions in line with policies and measures that have already been implemented (with existing measures, WEM), and an additional scenario that reflects developments with measures and policies that are in the planning phase (with additional measures, WAM) may also be submitted.

In the following two tables, these measures have been summarised with a focus on national measures and those EU instruments expected to reduce emissions the most. Please note that the table includes also measures that address GHG emissions covered under the ETS such as measures reducing emissions from electricity generation (e.g. feed-in tariffs). An update on the status of the policies and measures is included in order to assess the validity of the scenarios.

Table 2: Existing and additional measures as stated in the 2013 GHG projections

Existing N	leasures	Status of policy in November 2013
	Third 'Conto Energia' (art.3 paragraph 1, decree 6 august 2010) and Fourth 'Conto Energia' (Decree 5 may 2011)	The fifth Energy Account ("Conto Energia") is in place. For PV it was in place to support through a feed-in premium tariff (Ministerial decree - DM 5/7/2012) until its phase-out in July 2013 as the cap had been reached. No information on a follow-up is currently available.
Energy	White certificates - decree December 2007: (Reduction of electricity demand and) support of Combined Heat and Power (CHP) plants	In force, strengthened and extended (Ministerial decree - DM 28/12/2012). Details are provided in Section 4.
	Supporting system for RES and CHP with Regional operative programme(POR) and Interregional operative programme(POIN)	Some of the individual programmes are in force
	Building Regulation (Legislative decree 192/05 as amended by legislative decree 311/06): Minimum mandatory standards on new and existing buildings (RES)	In force
Energy Efficiency	White certificates - decree December 2007: Reduction of electricity demand (and support of CHP plants)	In force, strengthened and extended (Ministerial decree - DM 28/12/2012). Details are provided in section 4.

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Decision No 280/2004/EC of the European Parliament and of the Council of 11 February 2004 concerning a mechanism for monitoring Community greenhouse gas emissions and for implementing the Kyoto Protocol.

	Building Regulation (Legislative decree 192/05 as amended by legislative decree 311/06): Minimum mandatory standards on new and existing buildings (Energy Efficiency)	In force
	Emission standards for cars as of Regulation (EC) No 443/2009.	In force, more stringent measures than this were included in the National Energy Strategy
Transport	Legislative decree 128/05 (transposition of directive 2003/30/EC): Mandatory use biofuels (target 4.5% to 2012) in the transport sector	In force
	Infrastructural measures - Intermodal infrastructure projects: metropolitan railways (National Strategic Framework 2007-2013 - FESR)	Some of these regional programmes are in force

Source: Reporting of MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, May 2013 and MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, May 2013 and MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, May 2013 and MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, May 2013 and MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, May 2013 and MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, May 2013 and MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, May 2013 and MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, MS in accordance with Decision No 280/2004/EC about their GHG emission projection with Decision No 280/2004/EC about their GHG emission projection with Decision Projection Proj

Additional	Measures	Status of policy in November 2013
	National Renewable Energy Action Plan	In force since 2010.
Energy	New measure of promoting and supporting RES-E	The New National Energy Strategy was approved in March 2013, and contains important provisions as regards RES-E, as well as efficiency measures for Italy.
	Reformulation of energy taxation	Some general proposals have been published by the Environmental Ministry in 2012. However, no developments have taken place in 2013.
	Minimum quota of 50% of domestic hot water to be produced using renewable energy sources for end users who own newly-constructed buildings or buildings to be refurbished	The obligation entered into force on 30 September 2011. Since this date, RES must cover 50% of the consumption of hot sanitary water (Legislative Decree - DL 28/2011).
	Minimum quota for electrical capacity installed using renewable sources for end users who own newly-constructed buildings or buildings to be refurbished	The obligation entered into force on 30 September 2011. Quotas are different depending on the date of construction of the building (DL 28/2011).
	Support for the creation of district heating and district cooling networks	Since 2011, local authorities for municipalities above 50,000 inhabitants are obliged to establish development plans for district heating networks (DL 28/2011).

	National Energy Efficiency Action Plan	In force since 2011.
Energy Efficiency	Further extension of the energy saving target (White certificates 2016-2020)	Temporarily extended until 2016 (DM 28/12/2012)
	Directive 2010/31/EC - New building efficiency standards	The Directive was transposed into national law in May 2013 (DL 4/6/2013)
	Extension from 2013 to 2020 of tax deduction of 55%	The tax deduction was raised to 65% and mandate has been given to the government to stabilize this deduction for the years beyond 2013 (DL 4/6/2013).
Transport	Infrastructural measures - Intermodal measures to be funded: Promotion of measures in the transport sector (infrastructure, intermodal and public mobility with electrical transport)	A plan for electric infrastructure for electric vehicles and a Memorandum of Understanding between The Ministry of Environment, Trenitalia S.p.A. and Auta Marocchi S.p.A. for the railway network are in force (L 7/8/2012, Minambiente 2013).
	Measures, incentives, and new CO ₂ target more stringent than those indicated in Regulation (EC) No 443/2009 and proposed regulation COM(2009) 593/3	Included in the new energy strategy.

Source: Reporting of MS in accordance with Decision No 280/2004/EC about their GHG emission projections up to 2020, May 2013

The measures reported in the scenario with existing measures are all in force and some have recently been strengthening. However, Italy needs additional measures to meet its target and at least some progress can be reported from the additional measures addressing non-ETS emissions. However, one of the main measures to further reduce non-ETS emissions would be the strengthening of energy taxes e.g. through the introduction of a carbon tax. In this regard, no progress can be reported.

3 Evaluation of National Reform Programme 2013 (NRP)

In April of each year, Member States are required to prepare their National Reform Programmes (NRPs), which outline the country's progress regarding the targets of the Europe 2020 Strategy. The NRPs describe the country's national targets under the Strategy and contain a description of how the country intends to meet these targets. For climate change and energy, three headline targets exist: 1) the reduction of GHG emissions, 2) the increase of renewable energy generation, and 3) an increase in energy efficiency (⁴).

The 2013 NRP focuses on mobility, incentive schemes for RES-H and GHG reduction. No specific measures are provided as a direct substitute or follow-up for the incentive scheme for PV systems (Fifth Conto Energia) whose cap was reached during the

⁴ There are specific targets for all MS by 2020 for non-ETS GHG emission reductions (see section 2) as well as for the renewable energy share in the energy mix by 2020 (see section 4, renewable energies). Specific energy efficiency targets will be defined (or revised) by the MS until the end of April 2013 in line with the methodology laid out in Article 3 (3) of the Energy Efficiency Directive (Directive 2012/27/EU).

summer. However, PV systems are now classified as "projects aimed to achieve energy savings" and thus can benefit from tax deductions as described in the energy efficiency section (GIFI 2013).

In the following table, the main policies and measures as outlined in the NRP of April 2013 (⁵) have been summarised, and their current status (implemented, amended, abolished, or expired) is given, with specifics on latest developments.

Table 3: Main policies and measures as outlined in the NRP, April 2013

Update of national strategy for the reduction of GHG (CIPE Resolution n. 123/2002)				
Status as stated in the NRP	Implemented			
Status as per Nov 2013	In force			
Description of policy or measure	The aim of the original plan, following CIPE resolution 123/2002, was to continually increase the diversity of the portfolio of energy sources in order to maintain energy independence, including increasing the share of renewable energy sources and reduce the share of carbon-intensive energy sources. This update has the aim to ensure that the goal of 25% emission reduction to 2020 is respected via a number of measures and actions. The update was originally published in 2007, but was enforced in March 2013 (CIPE 2013 – Delibera 8 Marzo 2013)			

Fifth Energy Account (Conto Energia)			
Status as stated in the NRP	In force		
Status as per Nov 2013	Cap reached in 2013; no new plants can access the scheme		
Description of policy or measure	The Feed-in tariff known as Fifth Energy Account (<i>Conto Energia</i>) has reached its established cap of 6.7 billion €. After the cap has been reached, no new installations can access the scheme (DM 5/7/2012).		

New rules for heating/cooling systems		
Status as stated in the NRP	Approved	
Status as per Nov 2013	In force	
Description of policy or measure	This regulation (Decree of the President of the Republic - DPR 16/04/2013) establishes new rules for air and water heating/cooling systems with respect to usage, maintenance, controls, maximum and minimum temperature in buildings. The Decree also mandates the establishment of a registry for such systems at regional level.	

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All NRPs are available at: http://ec.europa.eu/europe2020/making-it-happen/country-specific-recommendations/index_en.htm

Implementation of the Thermal Account (Conto Termico)		
Status as stated in the NRP	Envisaged in the National Energy Strategy	
Status as per Nov 2013	In force	
Description of policy or measure	Thermal Account is a support scheme for RES-H installation, aimed at incentivising energy production from renewables and speeding up energy upgrade projects for public buildings (DM 28/12/2012). Until now a total budget of 30 million € has been made available for a call open in summer 2013.	

The MoU on sustainable mobility		
Status as stated in the NRP	Signed	
Status as per Nov 2013	Signed	
Description of policy or measure	The Ministry of Environment, Trenitalia S.p.A. and Auta Marocchi S.p.A. signed o Memorandum of Understanding on sustainable mobility in February 2013. The MoU establishes the target to increase rail freight transport from current 6% to 24% of total transport (reduced environmental impact by trucks) by shifting road transportation of goods to rail transportation.	

Fondo per la Mobilità Sostenibile – Fund for sustainable mobility		
Status as stated in the NRP	In force	
Status as per Nov 2013	In force	
Description of policy or measure	According to the Ministry of Environment, this fund, with an overall budget of 200 million €, has been able to finance 192 projects: 101 in Metropolitan Areas and 91 in smaller communities. Some of the actions supported are: traffic control and reduction, reinforcement of public transport and car sharing, incentives for purchasing lower emissions vehicles (Minambiente 2013b).	

PNire - Piano Nazionale Infrastrutture di Ricarica Elettrica – National Plan Of Electric Recharging		
Status as stated in the NRP	Initiated	
Status as per Nov 2013	In force	
Description of policy or measure	The plan was initiated in August 2012 (L 7/8/2012) and has undergone a public consultation in April-May 2013. The main aim is to establish new regulations for the construction of infrastructure networks able to reach recharge stations for electric vehicles and for intencivising their purchase.	

4 Policy development

This section covers significant developments made in key policy areas between February 2013 and November 2013. It does not attempt to describe every instrument in the given thematic area.

Environmental Taxation

In Italy, the share of environmental tax revenues in total tax revenues amounted to 6.53% in 2011. Compared to the GDP, the share of these revenues was at 2.78%. Both values are above the EU average. Currently no explicit carbon tax is in place, although a carbon tax has been under discussion for years in Italy and the Minister for Environment made some general proposals in 2012. Also in 2013 no developments have taken place in this regard.

Italy's implicit tax rate on energy amounted to 211 € per tonne of oil equivalent (toe) in 2011 and was the 4th highest among the MS. However, this value had dropped since 2005, compared to peaks in the late 1990s and early 2000s. In 2010, Italy was also in the fourth place compared to other MS with regard to the energy intensity of its economy. Despite the fact that Italy has a high implicit tax rate on energy, the share of energy tax revenues in total tax revenues is only moderate (Eurostat 2013a).

A carbon tax has been under discussion for years in Italy and the Minister for Environment made some general proposals in 2012. However, no developments have taken place in 2013.

Italy has a quite structured range of environmental taxes, related to energy, fuels, transport and polluting activities (e.g. emissions of sulphure dioxide). However, it has been underlined by the OECD that although these taxes are relatively high in comparison to the European average (especially in the areas of fuel and energy), they do not sufficiently reflect environmental externalities. The example brought forward was the excise duty on fuel, which differs widely across fuel types and does not reflect the corresponding fuel's carbon impact appropriately. Recommendations made by the OECD include: eliminating taxes that may have a negative consequence on the environment, restructuring energy and fuel taxes to take into account environmental externalities and reforming existing taxes on resource use and pollution (or introducing new ones) (OECD 2013).

In addition, according to an analysis carried out by CGIA Mestre (Association of Artesans and Small Enterprises of Mestre) the income deriving from environmental taxes may be better distributed as only 1% of the income is used by public institutions for environmental safety in case of extreme weather (CGIA 2013).

Energy Efficiency

The energy intensity of the Italian economy was the fourth-lowest of all EU MS in 2011, having dropped 7% between 2005 and 2011. Final energy consumption also fell over the same period by 9%. Between 2010 and 2011 the reduction reached only 2% and Italy is thus slower than the EU average (Eurostat, 2013a).

In the time form 2005 to 2010 the energy efficiency of the industry increased by 7%. The branches with the highest improvement rates were the chemical and the steel industries. On the contrary, the machinery industry experienced a loss of efficiency over the years

and the situation deteriorated further since 2007. The household sector is showing better results than the industrial sector. Efficiency increased by 34% from 1990 to 2010, mostly due to improvements in space heating and large electrical appliances. However, since 2005 progress, especially in space heating, has significantly slowed down (Odyssee 2012).

In March 2013, Italy adopted a new <u>National Energy Strategy</u> which sets the target to reduce energy consumption by 231.7 TWh by 2020 and lists a number of measures to implement this target. Most of the measures aim at strengthening and enforcing existing instruments such as the white certificate scheme (MSE 2013b).

The white certificate scheme, which was first introduced in 2004, is Italy's principal policy instrument for promoting energy efficiency. White certificates represent energy not consumed and are provided to companies operating in the energy services sector to certify reductions of energy consumptions obtained through energy efficiency projects. For each toe reduction in the consumption, one certificate is issued. In July 2013, first steps were taken to strengthen the system by expanding the scope of the certificate scheme to include seven new types of works to improve energy efficiency: new electric engines installation, requalification of steam by means of mechanical recompression, installation of industrial fridges; installation of high efficiency UPS (DM 28/12/2012, GSE 2013).

In 2013 Italy also introduced a new tax incentive for energy efficiency measures. Certain energy refurbishment measures can now count on a tax deduction of 65% of expenses related to refurbishment of existing buildings, renovations aimed to increase efficient use of energy of buildings and installation of RES-H technologies (50% in the case of the installation of PV panels). The incentive was first introduced as a temporary measure, but was prolonged in June 2013, after its successful uptake. Finally, Conversion Law 90 of 2013 requested the government to stabilise the incentive scheme beyond 2013. (DL 4/6/2013). On 15 October 2013, a draft budget was published by the Government, which indicated that the deduction will maintain its current level (65%) until 31 December 2014, and then will progressively decline to 50% in 2015 and 36% in 2016. However, the draft budget still needs to pass a parliamentary vote to be confirmed, thus amendments could still be made. (Qualenergia 2013d)Other measures to be expected, according to the National Energy Strategy, include the strengthening of the Energy Service Company model, the introduction of incentives such as the Thermal Account, support for research and innovation or the promotion of information campaigns (MSE 2013b).

Renewable Energy

The proportion of final energy use in Italy covered by renewable sources more than doubled between 2005 and 2011, but at 11.5% still leaves plenty of room for improvement if the 17% goal for 2020 is to be reached. Developments in the electricity sector have been similar, with the 2011 value at 23.5% (Eurostat, 2013b).

The most relevant change in the policy setting was the introduction of the new <u>National Energy Strategy</u>, which was confirmed and approved via Ministerial Decree in March 2013 following extensive consultations. The strategy has a medium- term and long-termperspective, including the following milestones for Italy:

 energy cost reduction: due to a planned investment of 4-5 billion € per year in renewables, energy efficiency and energy infrastructure, savings of about 13,5 billion € per year are expected from 2013 onwards. Additional measures aimed at this cost reduction will be targeted to stimulate a decrease in energy prices and volumes.

- reaching and surpassing all European climate change and energy goals: 21% GHG emission reduction by 2020, 24% reduction of consumption with respect to the no-action scenario, 19-20% of renewable energy share in total consumption (instead of the 17% European goal for Italy).
- higher security of supply: reduction from 84% to 62% of energy dependence.
- industrial development of the energy sector: incentivising private investments to reach 170-180 billion € in 2020 (MSE 2013b).

However, the promotion of renewable energy, a policy priority of Italy, faced a backlash with the phase-out of the major support scheme, called <u>Fifth Energy Account</u> (*Conto Energia*), as it reached its cap of €6.7 billion in June 2013. The Energy Account is a premium tariff for photovoltaics. Its legal basis, Ministerial Decree 05/07/12, established that the support scheme would have ceased once the cap of 6.7 billion would have been reached (Qualenergia 2013, MSE 2013). However, the Italian Revenue Agency classified PV systems as "projects aimed to achieve energy savings" and thus they can benefit from tax deductions as described in the energy efficiency section (GIFI 2013).

In contrast, Italy has made progress with respect to renewable heating. The main support scheme in Italy is the <u>Thermal Account</u> (*Conto Termico*) which was introduced in 2012 and which provides subsidies for the installation of renewable heating and cooling systems, as well as for energy efficiency refurbishments. The cap of the incentive scheme was set at \leq 200 million for public entities and at \leq 700 million for private persons. Once the cap is reached, this funding level will be reassessed. Between June and August 2013, registration for the first call was open. Subsidies were available for substituting heating systems with heat pumps or biomass installations, for substituting boilers with heat pump-based boilers, and for installing solar thermal systems. For this call, a budget of \leq 7 million was available for public entities and of \leq 23 million for private ones. Eligibility was restricted to plants with a capacity between 500 kW and 1 MW. The incentive is granted for a period of 2 to 5 years, depending on the location, type of plant and capacity (GSE 2013b, 2013c).

In the same period of time, the regulator (the Authority for Electric Energy and Gas) has been focusing on modifying the overall setting for electricity costs, in terms of introducing changes to the tariff and to the regulations for self-consumption of produced electricity.

Specifically, in May the regulator started a <u>comprehensive review of the components of the electricity tariff to cover system costs</u>. The process is expected to run until 2015 and aims at redesigning the tariff so as to better reflect the actual cost of the provided service. The rationale behind this is that the tariff structure in Italy has not been changed since the 1990s and is thus in need of an update to reflect the evolution the electric market has undergone in the past years, and take into account the higher RES penetration. In order to take the different points of view into account, the regulator has started consultations, an analysis of regulatory impact and a comparison with the solutions adopted in different countries (Autorità 2013).

Furthermore, the regulator published in May 2013 a consultation document for an upcoming resolution impacting self-consumption of electricity. The document states that self-produced-and-consumed electricity, which is not transported on the grid, should also be liable for payment of the grid usage fees. This reflects the concern that the rapid

increase of small RES installations, now free from payments for grid usage and dispatchment, will eventually cause a cost increase to electricity consumers. Following the increase of self-consumption, in fact, fewer consumers would take electricity from the grid whereas overall system costs would remain the same. The issue of self-consumption is the cause of a fierce debate between RES associations and the regulator. The reference document stating these changes (DCO 183/2013) was open for consultation until 14 June 2013 (Autorità 2013b, Qualenergia 2013b, 2013c).

On a more general level, discussions on electricity prices are currently ongoing, in particular in regard to minimum guaranteed prices to be paid to producers for their electricity. The regulator always guaranteed minimum levels for plants under 1 MW that sold their electricity via the "Ritiro dedicato" (a purchase and sale scheme managed by GSE on behalf of producers), however now changes might be expected, according to two draft pieces of legislation introduced on 31 October and 6 November 2013 (Qualenergia 2013e, Autorità 2013c). Currently the proposals are as follows:

- Plants that sell their energy via the "Ritiro Dedicato" would not be granted minimum prices and would always have to sell at market prices;
- For all other plants, the minimum price will be reduced from around €80/MWh to €40/MWh.

A decision on these points has not yet been taken at institutional level (as of November 2013)..Lastly, a minor change with respect to renewable energy installations was introduced with Law 220/2012, which entered into force on 18 June 2013 (L 220/2012). The relevant modifications refer to the lower quorum needed to approve a renewable energy installation on common areas of a building. In practice, this means that it will be less demanding to obtain approval for renewable installations on common areas of a building (L 220/2012).

Energy Networks

In July 2013, it was reported that the European Investment Bank will support the development of the national grid in Southern Italy for the period 2012-2016 with €570 million. The focus of this financial support will be the development of the grid in Campania, Puglia, Sicily and Calabria (EIB 2013).

Transport

Emissions from transport have increased between 1990 and 2011 but showed a downward trend since 2005. However, their proportion among Italy's total emissions remains high and has even further increased to 24% (Table 1). Therefore, these emissions are especially important to address, when considering further measures.

Average emissions for newly registered cars are low in Italy with a level of 126.2 CO₂/km. The level is the 8th lowest in the EU but has decreased at a lower rate than the EU average between 2005 and 2012 (Eurostat 2013a). In Italy, none of the vehicle taxes takes CO₂ emissions into account. The registration tax, applied to both new and second hand cars, is based on engine capacity (kW) only and the rates vary according to the region. Ownership taxes are either based on engine capacity and EURO emission standard, or on weight and number of axles (ACEA 2012). For some parts of the road network a distance-based road toll is charged (CE Delft 2012).

Excise duties for petrol are the second highest in the EU after the Netherlands, and also the tax rate for transport diesel is very high, but still €100/1000 litres below petrol tax rates (European Commission 2013).

Despite the high share of transport emissions in overall emissions, Italy currently does not seem to consider the issue a policy priority and there is no comprehensive strategy for tackling these emissions.

However, in 2013, Italy has taken first measures to increase the use of low-emission vehicles. From 14 March 2013, the Ministry of Economic Development provides lump sum incentives for the purchase of cars powered by natural gas, electricity and hybrid engines based on the CO_2 emission level. In 2013 and 2014, incentives of 20% of the purchase price of the vehicle are provided with a maximum amount of €3,000 to €5,000, depending on the emission level of the car. This subsidy is lowered to 15% of the price and a maximum of €1,800 to €3,500 in 2015. The total available budget until 2015 is € 120 million: € 40 million in 2013, € 35 million in 2014 and € 45 million in 2015 (DM 11/1/2013).

5 Policy progress on past CSRs

As part of the European Semester, Country Specific Recommendations (CSRs) for each MS are provided by the EU Commission in June of each year for consideration and endorsement by the European Council). The recommendations are designed to address the major challenges facing each country in relation to the targets outlined in the EU 2020 Strategy. In the following table, those CSRs that are relevant for climate change and energy that were adopted in 2013 are listed, and their progress towards their implementation is assessed.

Existing Country Specific Recommendations	Progress
Shift the tax burden from labour and capital to consumption, property and the environment in a budgetary neutral manner. To this purpose, review the scope of VAT exemptions and reduced rates.	No explicit progress in this direction (see also Chapter 4: Environmental Taxation)
Upgrade infrastructure capacity with focus on energy interconnections.	A financing of € 570 million has been made available by the European Investment Bank for the development of the grid in the Southern regions.

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