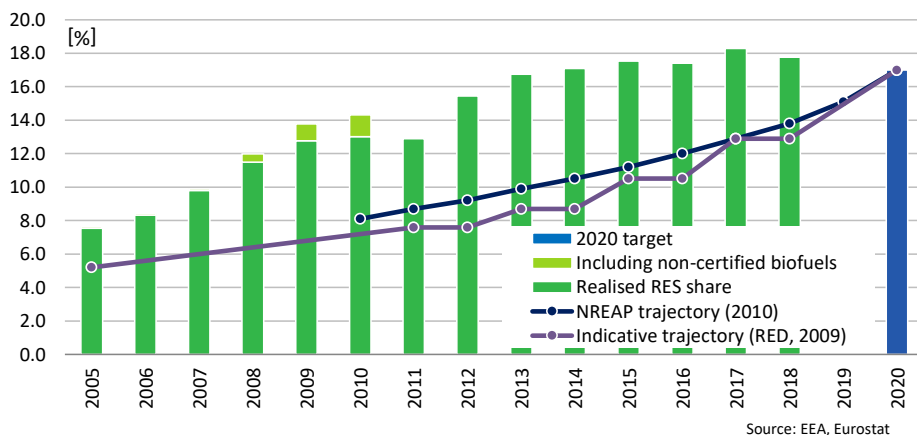


Summary

In 2017, Italy approved the new National Energy Strategy (NES). Main targets of this NES are, next to reaching Europe's decarbonisation targets in line with the Paris Agreement, enhancing Italy's competitiveness by reducing the gap between European and Italian energy prices and improving security and flexibility of energy supply. The Strategy contains actions to be achieved until 2030, which are in line with the EU Energy Roadmap 2050. On 10 August 2019, the so-called FER1 Decree, granting new incentives to renewable energy sources, took effect. Small RES plants have access to a guaranteed minimum price scheme. For all RES projects affected by the COVID-19 pandemic, deadlines for construction were extended by 6 months. For RES-H, there exists a tax regulation scheme and incentive for small RES-H sources. RES-T is promoted by quotas.



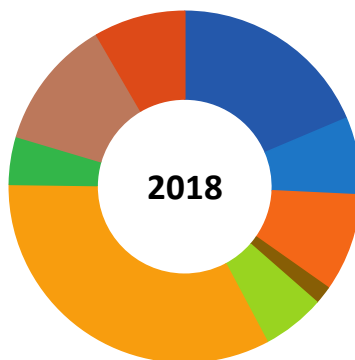
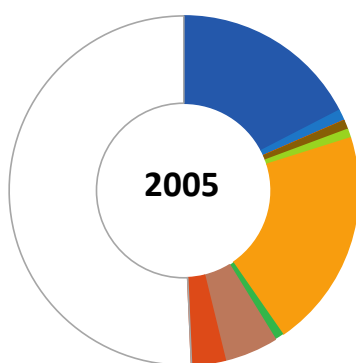
Source: EEA, Eurostat

Abbreviations used:

RES: renewable energy sources
 RES-E: renewable electricity
 RES-H/C: renewable heating/cooling
 RES-T: renewable transport fuels

Data for 2018

Overall RES share:	17.8%	Avoided fossil fuels:	33.5 [Mtoe]
Overall RES 2020 target:	17.0%	Avoided fuel expenses:	9.3 [billion euro]
Share RES-E in electricity:	33.9%	RES Turnover:	13980 [MEUR]
Share RES-T in transport:	7.7%	RES Employment:	121400 [jobs]
Share RES-H/C in heating:	19.2%		



- Hydropower
- Wind power
- Solar PV, CSP and water heaters
- Solid biomass
- Biofuels in transport
- Renewable heat consumed
- Renewable heat derived
- Heat pumps
- All other renewables
- Gap towards 2018

Source: Eurostat, 2020.

	2005		2018		
	Energy		Energy	Employment	Turnover
Hydropower	3764.8 ktoe		4024.1 ktoe	17300 Jobs	2250 MEUR
Wind power	220.0 ktoe		1541.1 ktoe	8100 Jobs	1190 MEUR
Solar PV, CSP and water heaters	2.7 ktoe		1947.9 ktoe	12500 Jobs	1610 MEUR
Solid biomass	186.3 ktoe		360.4 ktoe	24400 Jobs	1750 MEUR
Biofuels in transport	176.7 ktoe		1249.6 ktoe	8500 Jobs	740 MEUR
Renewable heat consumed	4366.6 ktoe		7126.7 ktoe		
Renewable heat derived	190.5 ktoe		950.1 ktoe		
Heat pumps	1070.0 ktoe		2595.9 ktoe	37600 Jobs	4950 MEUR
All other renewables	673.4 ktoe		1809.3 ktoe	13000 Jobs	1490 MEUR
Gap towards 2018	10954.1 ktoe				

Source: Eurostat, EurObserv'ER, 2020.

Hydropower jobs & turnover only covers 'small hydropower'. PV=Photovoltaics, CSP=Concentrated Solar Power. Biofuels in transport only covers compliant fuels (employment and turnover additionally cover the non-compliant biofuels). Derived heat includes heat produced in main activity producer plants and heat sold produced in autoproducer plants. Its counterpart is the final heat consumption in the final consumption sectors (such as households).



CURRENT RENEWABLE ENERGY POLICY

In November 2017, the National Energy Strategy (NES) is made public by the Italian government. It provides a ten-year plan and sets out the path for Italy to achieve sustainability, security and competitiveness in the national energy system.

The core targets of the NES 2017 are:

- A total of 10 Mtoe reduction in final energy consumption until 2030;
- 28% of renewables in total energy consumption by 2030;
- 55% of renewables in electricity consumption by 2030;
- Phasing out coal in electricity generation by 2025;
- Strengthening security of energy supply and narrowing the energy price gap;
- Furthering eco-friendly fuels and sustainable public mobility.

OVERVIEW OF MAIN SUPPORTING POLICIES

Six years after the expiration of the main support scheme for PV power plants, the Conto Energia feed-in tariff, a new incentive scheme was introduced. On 10 August, 2019, the so-called FER1 Decree, also known as the Ministerial Decree of 4 July 2019, took effect. It grants new incentives to renewable energy sources was signed by the Italian government. The scheme will provide incentives of around EUR 1 billion per year and end in 2021. In addition to PV, also onshore wind, sewage gases, and hydro can benefit from the FER1 Decree. The Decree applies to RES plants that do not already receive incentives under the Ministerial Decree of 23 June 2016. The incentives are available via a reverse auction system for plants with a capacity of more than 1MWp and a ranking system for smaller plants. The FER1 decree defines timelines for completion of construction works and starting operations for projects that have been awarded a tariff under FER1 (see Table 3 for more details). In May 2020, the GSE (Gestore Servizi Energetici) published a note that all these deadlines were extended by 6 months for all projects whose terms were running during the outbreak of the COVID-19 pandemic. The expected result of this incentive scheme is an estimated total new capacity of 8 GW.

For smaller RES installations, there is a guaranteed minimum price for electricity fed into the grid by small plants (Ritiro dedicato) and a net metering service (scambio sul posto) in place. Under the ritiro dedicato, RES producers can decide whether they sell their produced energy on the free market or alternatively to the GSE for a guaranteed minimum price, who then sells the energy on the free market. The net metering service allows the offset of electricity withdrawn from the national electricity grid and electricity a consumer/producer generates in an eligible on-site plant and injects into the grid. Furthermore, there are tax exemptions for photovoltaic and wind power plants.

With respect to RES-H, there is a tax regulation scheme as well as a guarantee fund for district heating. For small scale RES-H sources, the Conto Termico 2.0 grants incentives. Furthermore, there exists a tax deduction scheme (detrazione) for energy efficiency measures that include installing RES-H. For several years, biofuels, as bioethanol or biodiesel, have been supported through a quota system in order to reduce fossil fuel use in transport.

More details are provided in Table 2 and Table 3 below.

Table 2: Overview of support schemes to promote renewable energy in Italy

	REGULATORY POLICIES					FISCAL INCENTIVE AND PUBLIC FINANCES			
	Feed-in premium / tariff	Tendering	Quota obligation with Tradable Green certificates	Quota obligation without Tradable Green certificates	Net-metering/ net-billing	Capital subsidy, grants	Tax regulation mechanism	Direct premium	Loans guarantees to finance feasibility studies
RES-E									
- Offshore wind	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Onshore wind	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Solar	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Hydro	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Geothermal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Solid biomass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Biogas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RES-H/C									
- Solar thermal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Geothermal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Biomass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Biogas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Small scale installations, e.g. solar thermal collects, heat pumps, biomass boilers and pellet stoves	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Others, i.e. aerothermal, hydrothermal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RES-T									
- Bio gasoline	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Biodiesel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sources: EurObserv'ER, GSR/REN21, RES-Legal Europe (2019)

Table 3: Brief description of key policy instruments aimed at promoting RES in Italy

<i>Instrument</i>	<i>Description</i>
RES Decree 2019-2021 (FER1)	<p>Eligible technologies are onshore wind, PV solar, hydro (running water and reservoir/basin), and sewage gases. The incentives paid under the programme are determined based on the technology and plant size, where larger power plants receive higher tariffs. Overall feed-in tariffs vary by technology as follows:</p> <ul style="list-style-type: none"> • PV solar: 70 – 105 EUR/MWh, • Onshore Wind: 70 – 150 EUR/MWh, • Hydro (flowing water): 80 – 155 EUR/MWh, • Hydro (basin water): 80 – 90 EUR/MWh, • Sewage treatment plant gas: 80 – 110 EUR/MWh, • PV solar: 70 – 105 EUR/MWh. <p>Plants with capacity up to 250 kW receive an overall feed-in tariff. Plants with capacities from above 250 kW but below 1 MW receive the difference between the overall feed-in tariff and the hourly zonal electricity price. Finally, plants with capacities above 1 MW receive the difference between the overall feed-in tariff, reduced by the offered reduction in the auction, and the hourly zonal electricity price.</p> <p>The FER1 Decree offers with alternative mechanisms to access the incentives based on plant capacity:</p> <ul style="list-style-type: none"> • < 1 MWp: ranking system, • > 1 MWp: reverse auction system. <p>The timelines for completion of construction works and starting operations for new plants that have been awarded a tariff under the ranking system are:</p> <ul style="list-style-type: none"> • Onshore Wind: 24 months, • PV Solar: 19 months, • Others: 31 months. <p>Timeslines for projects under the reverse auction system are:</p> <ul style="list-style-type: none"> • Onshore Wind: 31 months, • PV Solar: 24 months, • Others: 51 months. <p>All these deadlines are automatically extended by 6 months for all projects whose terms were running during the outbreak of the COVID-19 outbreak.</p>
Ritiro Dedicato (premium tariff)	<p>The Ritiro Dedicato aims at small RES capacities and is a simple purchase agreement. Renewable energy producers can decide whether they sell their produced energy on the free market or alternatively to the GSE (Gestore Servizi Energetici), who then sells the energy on the free market. In the latter case, the producers receive a guaranteed minimum price varies by technology and is regularly updated (according to Art. 7.6 , Annex A, AEEG 280/07). Maximum capacities eligible for the support scheme are:</p> <ul style="list-style-type: none"> • 100 kW for solar PV (if incentivised by other scheme), • 500 kW for hydro (if incentivised by other scheme), • 1 MW for all source, if not supported by other schemes.
Scambio sul Posto (net metering)	<p>Since 1 Jan. 2009, the GSE manages the net metering service (scambio sul posto). It allows prosumers to offset the electricity taken from the grid by electricity produced and fed into the grid. A contribution is paid by GSE to the prosumer based on withdrawals and injections of electricity from/into the grid in a given calendar year. In general, all technologies are eligible if they fall in the following capacity restrictions:</p> <ul style="list-style-type: none"> • RES-E plants with a capacity up to 500 kW (20 kW for plants

	<p>commissioned before 31 December 2007),</p> <ul style="list-style-type: none"> • CHP plants with a capacity up to 200 kW. <p>More details on the calculation of the net metering contribution can be found in the AEEG's Decision ARG/elt 74/08.</p>
Conto Termico 2.0	<p>This mechanism provides incentives for the production of thermal energy from RE. The total annual budget is EUR 900 million and the programme closes when this cap is reached. Eligible technologies are heat pumps, biomass boilers, heaters, and fireplaces, solar thermal systems, and solar cooling technologies.</p>
Detrazione (tax deduction)	<p>This scheme's tax deduction rates depend on the type of measure:</p> <ul style="list-style-type: none"> • 65% tax deduction for RES-H installations increasing the energy efficiency, such as solar thermal or heat pumps. • 50% tax deduction for biomass heat generators. • 70%-75% tax deduction for energetic requalification works aiming improving the summer or winter energy performance of common buildings.
Biofuel quota	<p>Biofuels are promoted through a quota system. The quota is to gradually increase from 5% in 2015 to 10% in 2020.</p>

For further information:

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IEA database on policies and measures, <https://www.iea.org/policiesandmeasures/renewableenergy/?country=Italy>

IEA (2017), Energy Policies of IEA Countries: Italy 2016, <https://www.iea.org/publications/freepublications/publication/energy-policies-of-iea-countries---italy-2016-review.html>

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Global Status Report by REN21, <http://www.ren21.net/gsr-2019/>

Member State Progress Report, available at the Renewable Energy pages of the European Commission, <http://ec.europa.eu/energy/en/topics/renewable-energy>

RES Legal database: <http://www.res-legal.eu/search-by-country/Italy>

What is meant by ...?

Auctions for granting renewable energy support	An auction is a process of granting production or investment support to renewable energy projects based on the lowest bids by eligible project developers.
Feed-in tariff (FiT)	A support scheme which provides for a technology-specific remuneration per unit of renewable energy payable to eligible renewable energy producers. A proper, periodic review of FiT rates is often undertaken with the aim to prevent both too high FiTs so as to minimise regulatory rents, i.e. supra-normal returns and too low FiTs to preclude below-target market uptake because of FiT levels that are perceived by market participants to be less attractive. In addition, feed-in tariffs often include "tariff degression", a mechanism according to which the price (or tariff) ratchets down over time.
Feed-in premium (FiP)	A scheme which provides for a support level per unit of renewable energy to eligible renewable energy producers, typically for a period of 10-20 years, at a pre-set fixed or floating rate. The premium is typically adjusted periodically to exactly offset change in the average energy wholesale market price, based on a pre-specified benchmark market price. A floating FiP may move freely or may only be allowed to move within a pre-set interval.
Grants	Grants are non-repayable funds disbursed by one party (grant makers), often a government department, corporation, foundation or trust, to a recipient, often (but not always) a non-profit entity, educational institution, business or an individual. (Source: Wikipedia.org)
Green public procurement	In Green public procurement contracting authorities take environmental issues into account when tendering for goods or services. The goal is to reduce the impact of the procurement on human health and the environment. (Source: Wikipedia.org)
Renewable quota scheme (RQS)	A RQS mandates certain market actors (typically retail suppliers or large energy end-users) to respect a pre-set minimum share or amount of their total energy procurements from renewable sources of energy. Typically a tradable green certificate (TGC) scheme is operated to enable the obligated parties to prove their compliance with the prevailing renewable quota target by means of TGCs.
Sliding feed-in-tariff	A FiT scheme which pre-sets technology-specific declining feed-in tariffs for certain prospective vintages in line with the technology-specific learning curve, as projected by the National Regulatory Agency (NRA). Often a degression rate is used indicating the %/annum decrease in the rate level.
Soft loans	Loans at concessional (below market-based) terms, for example at sub-market-conform interest rates, made available in several Member States to stimulate certain renewable energy technologies.
Tax credits	These are amounts a tax paying entity is allowed to deduct when declaring payable taxes, for example company tax or income tax, to the tax authorities, for example the producer tax credits (PTCs) used in the United States to stimulate among others wind energy deployment.



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