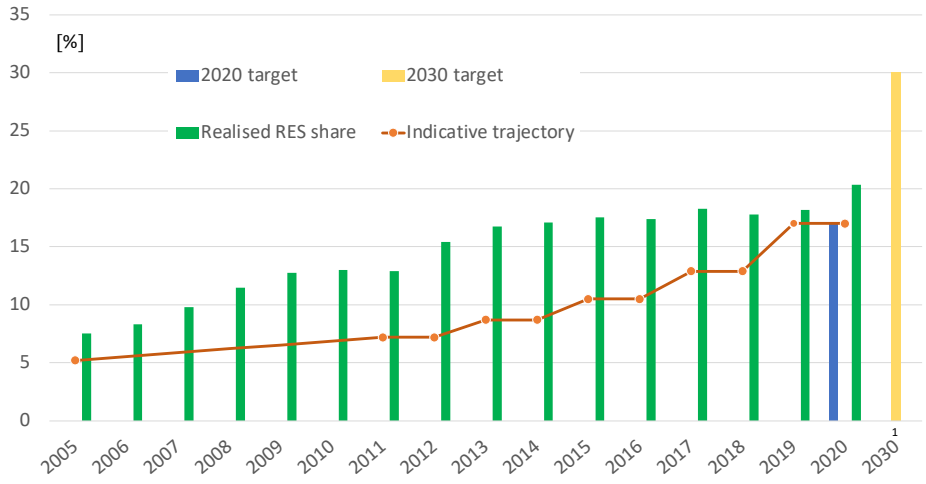
Renewable Energy Policy Factsheet

June 2022

Italy

Renewable energy status

Share of energy from renewable sources in total gross final energy consumption



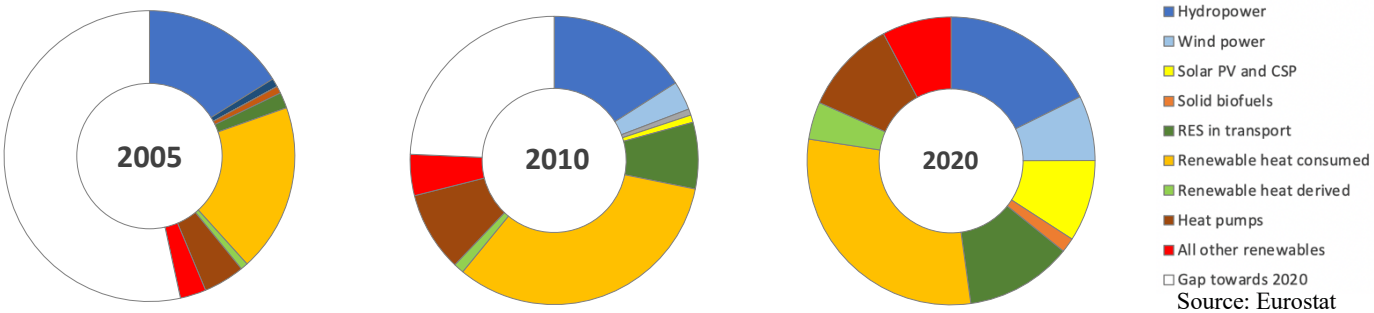
Source: Eurostat

Abbreviations used:

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

Data for 2020

Overall RES share:	20.4%	Avoided fossil fuels:	17.1[Mtoe]
Overall RES 2020 target:	17.0%	Avoided fuel expenses:	3 319 [MEUR]
Overall RES 2030 target:	28.0%	RES Turnover:	12 860 [MEUR]
Share RES-E in electricity:	38.08%	RES Employment:	99 900 [jobs]
Share RES-T in transport:	10.74%	RES imports[2]:	658 [MEUR]
Share RES-H/C in heating:	19.95%	RES exports[2]:	470 [MEUR]



Source: Eurostat

	2005	2010	2020		
	Energy in ktoe	Energy in ktoe	Energy in ktoe	Employment in FTE	Turnover in MEUR
Hydropower	3 764.8	3 730.9	4 126.2	11 600	1 630
Wind power	220	755.5	1 705.6	6 000	1 040
Solar PV, and CSP	2.7	163.9	2 144.6	12 400	1 780
Solid biomass	186.3	194.4	384.4	19 200	1 370
Ren. energy in transport[3]	408.9	1 741.4	2 810.4	5 700	600
Renew. heat consumed	4 366.6	7 653.5	6 920.2		
Renew. heat derived	190.5	272.1	983.0		
Heat pumps	1 070.0	2 092.4	2 475.1	35 900	5 320
All other renewables	673.4	1 079.5	1 815.5	9 100	1 120
Gap towards 2020	12 481.8	5 681.4			

Source: Eurostat, EurObserv'ER

FTE = Full time equivalent, 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 auto-producer plants. Its counterpart is the final heat consumption in the final consumption sectors (such as households).

[1] From Integrated National Energy Climate Plan

[2] Referring to the International Trade chapter from the publication: EurObserv'ER - *The State of Renewable Energy in Europe, 2021 edition*

[3] Employment and turnover are only referring to biofuels in transport.

CURRENT RENEWABLE ENERGY POLICY

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 provided incentives of around EUR 1 billion per year and was supposed to end in 2021. In December 2021 the Italian Legislator implemented the Directive 2018/2001/EU that extends FER1 after 2021 but also recalculate some criteria, which were criticized by some actors of the renewable industry. 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 if 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.

RES-E

Italy plans to increase the share of energy consumption based on renewable nergy sources within electricity consumption to at least 55 % by 2030 (38.08 % in 2020). 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.

RES-H

According to its national plan, Italy intends to reach out a 33.9 % RES share within heat and cooling consumption. 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 detraction scheme (detrazione) for energy efficiency measures that include installing RES-H.

RES-T

In transport sector, Italy is targeting a 22 % RES share by the end of 2030. For several years, biofuels, as bioethanol or biodiesel, have been supported through a quota system in order to reduce fossil fuel use in transport.

Table 1: Brief description of key policy instruments aimed at promoting RES in Italy

Instrument	*Description*
RES Decree (FER1)	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. 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. The RED II Directive has updated this mechanism in 2021
Ritiro Dedicato *(premium tarif)*	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: • 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)*	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 grind in a given calendar year. In general, all technologies are eligible if they fall in the following capacity restrictions: • RES-E plants with a capacity up to 500 kW (20 kW for plants commissioned before 31 December 2007), • CHP plants with a capacity up to 200 kW. More details on the calculation of the net metering contribution can be found in thee AEEG's Decision ARG/elt 74/08
Conto Termico 2.0	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.
Detrazione *(tax detraction)*	This scheme's tax deduction rates depend on the type of measure: • 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. Website: http://www.res-legal.eu/search-by-country/italy/single/s/res-hc/t/promotion/aid/tax-regulation-mechanism-tax-detraction/lastp/151/
Biofuel quota	Biofuels are promoted through a quota system. The quota is to gradually increasing from 5% in 2015 to 9% in 2022. Website : https://www.statista.com/statistics/977528/mandatory-quota-for-biofuels-in-italy/

For further information:

CEER, Status Review of Renewable Support Schemes in Europe for 2018 and 2019

https://www.ceer.eu/documents/104400/-/-/ffe624d4-8fbb-ff3b-7b4b-1f637f42070a

Dentons (2020), Italy: New incentives regime for renewable energy plants,

https://www.dentons.com/en/insights/alerts/2020/december/17/fer1-decree-2019-2020-incentives-regime-for-renewable-energy-plants#:~:text=Italy%3A%20The%202019%2D2021%20incentives%20regime%20for%20renewable%20energy%20plants,-Regional%20Capabilities&text=The%20so%2Dcalled%20%E2%80%9CFER1%20Decree,of%20generating%20capacity%20until%202021.

EurObserv'ER 20th annual overview barometer,

https://www.eurobserv-er.org/category/all-annual-overview-barometers/

EEA 2017: Progress of renewable energy sources, European Environmental Agency (EEA),

https://www.eea.europa.eu/data-and-maps (European Union), last accessed June 2017

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

Italian Ministry of Economic Development,

http://www.sviluppoeconomico.gov.it/index.php/en/news/2037432-national-energy-strategy

Gazzetta Ufficiale della Repubblica Italiana (Official Gazette of the Italian Republic), DECREE 4 July

2019, https://www.gazzettaufficiale.it/eli/id/2019/08/09/19A05099/sg

Gestore Servizi Energetici (2019),

https://www.gse.it/servizi-per-te/fotovoltaico/ritirodedicato/regolazione-economica-del-servizio

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.

Funded by the European Commission