# Renewable Energy Policy Factsheet

April 2025

# Italy

## Renewable energy status

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

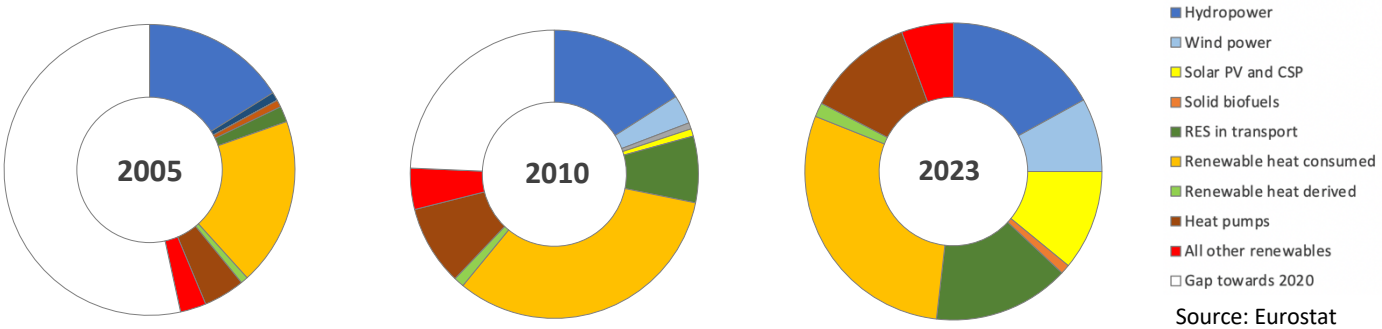

Source: Eurostat

**Abbreviations used:**

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

**Data for 2023**

| | | | |
|---|---|---|---|
| Overall RES share: | 19.6% | Avoided fossil fuels: | 18.2 [Mtoe] |
| Overall RES 2020 target: | 17.0% | Avoided fuel expenses: | 11 393 [MEUR] |
| Overall RES 2030 target: | 40.5% | RES Turnover: | 31 530 [MEUR] |
| Share RES-E in electricity: | 38.1% | RES Employment: | 228 900 [jobs] |
| Share RES-T in transport: | 10.3% | RES imports[2]: | 2 435 [MEUR] |
| Share RES-H/C in heating: | 21.7% | RES exports[2]: | 266 [MEUR] |




Source: Eurostat

| | 2005 | 2010 | 2023 | | |
|---|---|---|---|---|---|
| | Energy in ktoe | Energy in ktoe | Energy in ktoe | Employment in FTE | Turnover in MEUR |
| Hydropower | 3 764.8 | 3 730.9 | 4 111.2 | 5 200 | 750 |
| Wind power | 220 | 755.5 | 1 932.3 | 9 400 | 1 530 |
| Solar PV, and CSP | 2.7 | 163.9 | 2 640.7 | 47 800 | 6 670 |
| Solid biomass | 186.3 | 194.4 | 251.3 | 15 200 | 910 |
| Ren. energy in transport[3] | 408.9 | 1 741.4 | 3 590.1 | 5 400 | 560 |
| Renew. heat consumed | 4 366.6 | 7 653.5 | 7 063.1 | | |
| Renew. heat derived | 190.5 | 272.1 | 371.1 | | |
| Heat pumps | 1 070.0 | 2 092.4 | 2 843.2 | 135 900 | 19 830 |
| All other renewables | 673.4 | 1 079.5 | 1 364.8 | 10 000 | 1 280 |

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, 2024 edition*

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

# CURRENT RENEWABLE ENERGY POLICY

## RES-E

As regards the electricity sector, a variety of measures are partly already implemented and partly planned to support the further deployment of renewable installations. Small scale installations are promoted through various action lines, such as the development of renewable energy communities and single or collective self-consumption, up to fiscal measures related to small installations, or specific measures for contexts that deserve particular attention (such as small, non-interconnected islands). For larger plants, the development of Contracts for Difference (hereinafter CDF) to be concluded following competitive procedures will continue, as well as the creation of a favourable framework for the conclusion of Power Purchase Agreements between private individuals (hereinafter PPA). Measures are also foreseen to support plants based on innovative technologies, as well as to safeguard and upgrade the production of existing plants that are still competitive. Great attention is being paid to continuing the process of simplifying and speeding up authorisation procedures at all levels, and to identifying suitable areas in consultation with the regions through a process of sharing and sharing objectives at regional level (burden sharing).

Related to the topic of renewable energy in the electricity sector is the development of hydrogen, which is expected to be used in industry as a Community target (in particular in the hard to abate industry), as well as in the transport sector. Hydrogen production will be promoted both through the capital contributions provided for in the NRRP and through a new tariff measure which will make investments in a sector that is still far from competitive fairly profitable.

## RES-H

As regards the thermal renewables sector, promotion instruments will continue to be coordinated with the multiple measures foreseen for energy efficiency, in particular for buildings. In addition, other measures that support thermal renewables are, for example, the obligation to integrate thermal RES into buildings, the promotion of district heating and the obligation to supply renewable heat. In addition, biomethane (primarily) and hydrogen (the latter in particular in the industrial sector) will increasingly increase in the heat sector. From a technology point of view, it will be important to continue to create an enabling framework for the wide deployment of heat pumps in the civil sector, leaving the selection of the most efficient option for each application to the market and also enhancing the use of cooling inputs.

## RES-T

As regards the deployment of renewable energy in the transport sector, the Community context provides a favourable framework; in fact, the RED III Directive has increased the target to 2030 for the share of consumption in the transport sector covered by renewable sources, currently set at 14 % by RED II, to 29 %. As a result, suppliers will gradually increase their obligation to release renewable products for consumption, extending their application to all transport sectors, and coordinating their effects with the FuelEU Maritime and ReFuelEU Aviation Regulations. At the same time, it is proposed to promote the use of multiple energy carriers, for example by aiming to release for consumption a quantity of renewable fuels of non-biological origin and to make a contribution from the use of pure biofuels.

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.<br>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.<br>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.<br>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:<br>• 100 kW for solar PV (if incentivised by other scheme),<br>• 500 kW for hydro (if incentivised by other scheme),<br>• 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:<br>• RES-E plants with a capacity up to 500 kW (20 kW for plants commissioned before 31 December 2007),<br>• CHP plants with a capacity up to 200 kW.<br>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:<br>• 65% tax deduction for RES-H installations increasing the energy efficiency, such as solar thermal or heat pumps.<br>• 50% tax deduction for biomass heat generators.<br>• 70%-75% tax deduction for energetic requalification works aiming improving the summer or winter energy performance of common buildings.<br>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.<br>Website : https://www.statista.com/statistics/977528/mandatory-quota-for-biofuels-in-italy/ |

*For further information:*

National Plan integrated for Energy and Climate in Italy

CEER, Status Review of Renewable Support Schemes in Europe for 2018 and 2019
https://www.ceer.eu/documents/104400/-/-/ffe624d4-8fbb-ff3b-7b4b-1f637f42070a
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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

## *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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