







General Assembly

Rome, 16th November 2023 elettricitafutura.it

The Energy of Regions and Municipalities for the Security of Italy

Agostino Re Rebaudengo

President of Elettricità Futura







Congratulations to Mariangela Pira for having deserved the «Premiolino»

the oldest and most prestigious award dedicated to the world of information in Italy



Elettricità Futura represents the **70%** of the Italian electricity market

Elettricità Futura, the main Association of the national electricity industry, pursues the fundamental objective of promoting the development of the Italian electricity sector towards the energy transition, a path of revitalization of the industrial supply chain that allows creating significant benefits for the economy and employment by increasing the energy security, independence, sustainability and competitiveness of Italy.

With **50 new companies** joining Future Electricity this year, we have even more energy.



SPEED UP THE ENERGY TRANSITION!

This is the joint call for action addressed to European Governments by:

- **IEA** International Energy Agency
- **ECB** European Central Bank
- **EIB** European Investment Bank



FATIH BIROL EXECUTIVE DIRECTOR IEA

Achieving the energy transition is vital for Europe to remain a global industrial power.





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CHRISTINE LAGARDE PRESIDENT ECB

Procrastinating the transition and climate goals will increase the bill to be paid.





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WERNER HOYER PRESIDENT EIB

Until we fully achieve the energy transition, Europe will remain an easy hostage.





Freedom, Peace & Energy Independence.

YOU ARE EUROPE.

The European Commission's "You are EU" campaign also calls on everyone to turn the challenges we face into a better future through clean energy produced in Europe.

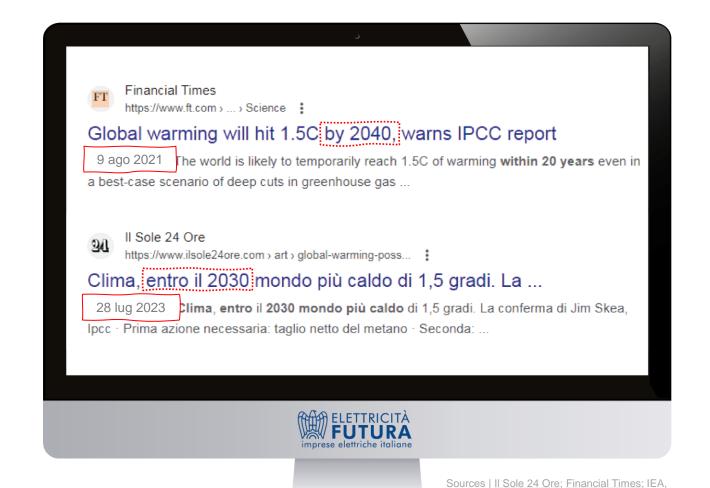




Climate change is faster than we thought!

FATIH BIROL EXECUTIVE DIRECTOR IEA

Today compared to 2021, the window of opportunities to keep the temperature rise within 1.5°C has narrowed. If this window still **remains open** it is only because of the growth of renewables and electrification.



Net Zero Roadmap: A Global Pathway to Keep

the 1.5 °C Goal in Reach



To achieve the +1.5°C target, we need to triple new RES annual installations!

According to IRENA, it is technically feasible and economically viable to increase from the **current 300 GW/year** of new renewable installations worldwide **to 1,000 GW/year by 2030**.



World Energy Transitions
Outlook 2023



Renewable energy reduces costs and secures supplies

According to IRENA, in 2022, renewable electricity allowed to save:

\$521 bn Worldwide

\$176 bn in Europe

\$25 bn in Italy (EF estimates)

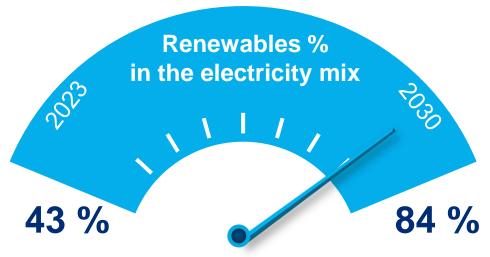
This is why more than 80 % of new electric power power built worldwide in 2022 is renewable (300 GW out of 360 GW).



2030 Electricity Plan, consistent with REPowerEU: 84% renewables in the electricity mix

143 GW of installed renewable capacity are needed!

To ensure the safety and adequacy of the system, it is also necessary to **make the capacity mechanism structural** and to **develop the grid**.



Electricity demand will grow from 305 TWh in 2023 to 360 TWh in 2030





To achieve 143 GW installed...

...we need to build **12 GW** of **new** renewable power per year in Italy.

Hence, over the period 2024-2030, we have to install at least 84 GW, of which:

56 GW Solar PV26 GW Wind2 GW Hydro, Bioenergies, Geothermal

...we need also to build **80 GWh** of large-scale storage.

143 GW

84 GW

to be installed in the next 7 years (2024-2030)

58 **GW**

Total RES power in 2021 (of which 8 GW soon to become obsolete)

6 **GW***

Installed in 2023

3 GW**

Installed in 2022

Out of the 6 GW that we estimate being installed in 2023, more than 4 GW will be small-scale power plants
** Out of 3 GW installed in 2022,
2 GW are small-scale power plants





Benefits for Italy of the 2030 Electricity Plan

320bn€

Investments of the electricity sector and its industrial supply chain.

360bn€

Economic benefits in terms of value added for the supply chain and related industries, and growth in domestic consumption.

-270mln t CO₂

Lower emissions of CO_{2eq} of the electricity sector over the 2030 Plan period.

540k

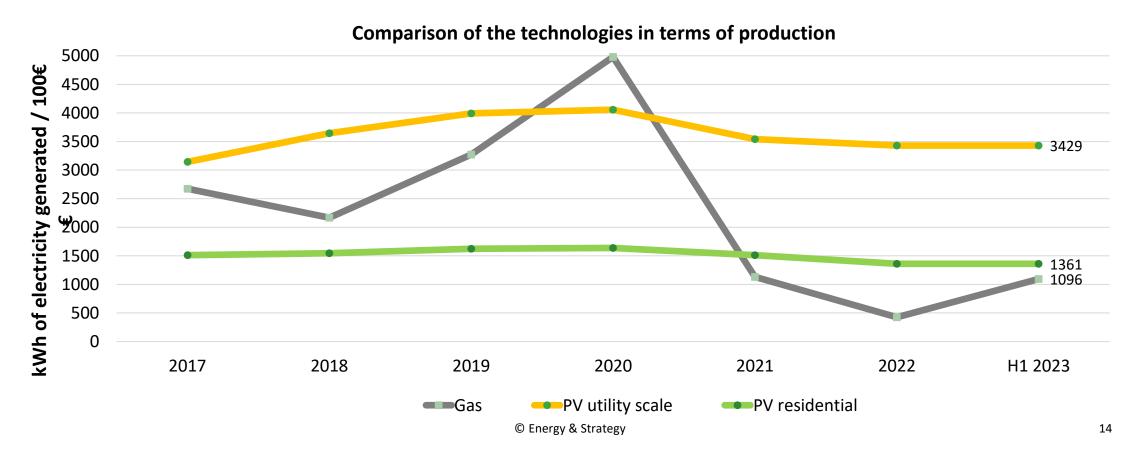
New jobs in the electricity sector and its industrial supply chain, additional to the current

120,000.

There is a difference between importing PV technologies and importing gas



- Considering an input budget of €100, the graph shows the kWh output achievable for the three types of technologies analyzed.
- Excluding the anomalous trend in 2020 (COVID year), the higher economic efficiency of electricity generation from a utility scale PV plant, compared to the generation from a gas plant, is evident. Also the values for residential PV systems resulted to be higher than gas plants' from 2021 onward, i.e. with the new fuel price level.





Are roofs enough to meet the 2030 target? Let's provide clarity.



Rooftop PV plants show a power generation cost that is more than double of the cost related to ground-mounted plants. The 2030 Plan scenario shows savings of over € 20 bn on the electricity generation's side (2024-2030) compared to a 100% rooftop-mounted scenario.

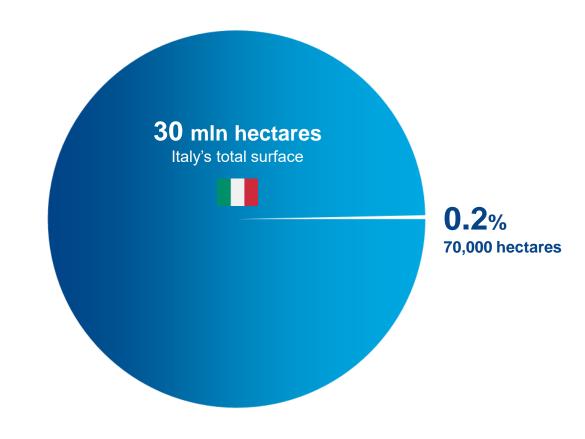




Renewables do **NOT** take land away from agriculture and do **NOT** damage the soil

Reaching the targets of the 2030 Plan requires only 0.2 % of land.

- Moreover, PV plants do not entail soil waterproofing and/or permanent artificial coverings (unlike concrete of buildings and asphalt on roads).
- Once the useful life of the PV plant is over, the area used by the plant can be reverted to its previous use: companies are obliged to revert areas to their original condition.





"Landscape is a molded shape that evolves only by living" J.W.Goethe

Since their origins, humans have modified territories **to meet evolutionary needs**, changing the landscape to cultivate, work, move, and inhabit. Along with the landscape, the sense of aesthetics has evolved as well.

Railways

Even for railways there has always been opposition. Instead, today we are witnessing a valorization of historic trains, such as the one in the Valley of the Temples in Sicily and those that run through Campania, Basilicata and Puglia, attracting tourists.



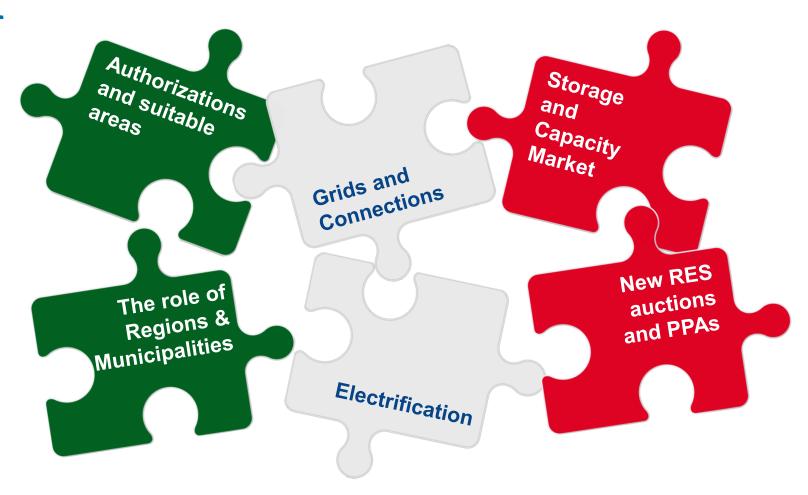


The Eiffel Tower

If in the late 19th century, the resistance of the many who saw the Eiffel Tower project as a disfigurement to the city's skyline had won, a blight on the landscape, we would not have one of the most famous monuments in the world today!



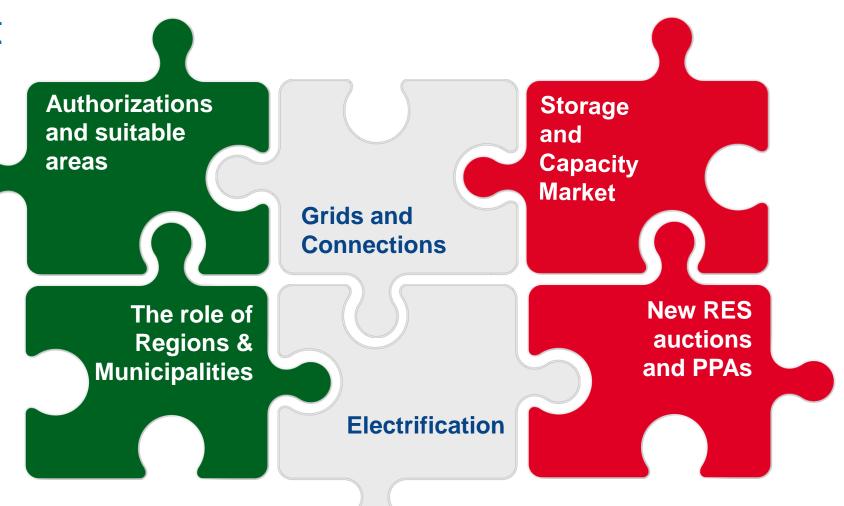
The energy transition is not an impossible puzzle







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Thank you for the attention

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