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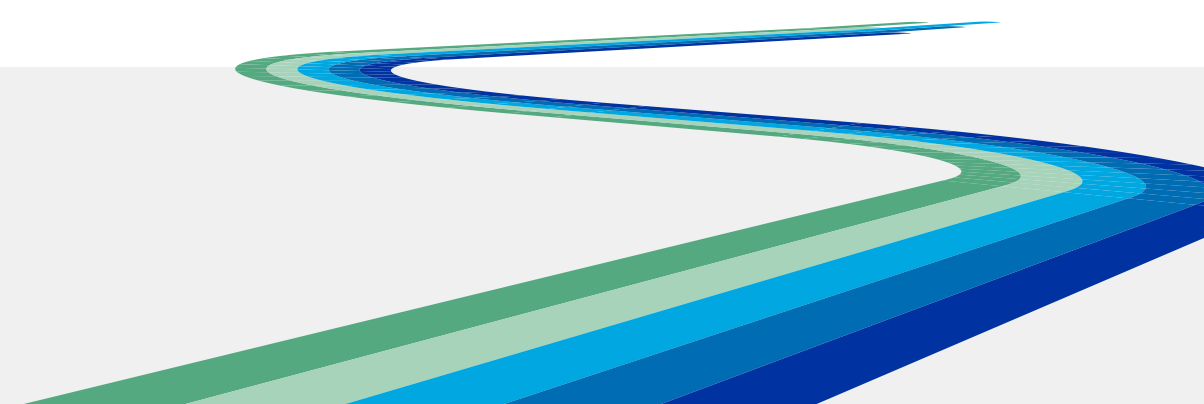
The Global Energy Transition Toward Decarbonization: a multi-scalar perspective and transformation

Plenary Session: Grid security and energy storage

The 2030 Italian electricity sector plan: crucial opportunities for Italy

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Elettricità Futura representing over **70%** of the Italian electricity market

Elettricità Futura is **the leading Association of the national industrial electricity supply chain** and has the fundamental objective of **promoting the development of the Italian electricity sector** in the direction of energy transition, a path of revitalization of the industrial supply chain that can create significant benefits for the economy and employment by increasing Italy's security, independence, sustainability and competitiveness.

Companies active in the **production** and **marketing** of electricity from conventional and renewable sources, in **distribution**, and in the **supply of services** to the sector have chosen Elettricità Futura to grow further.

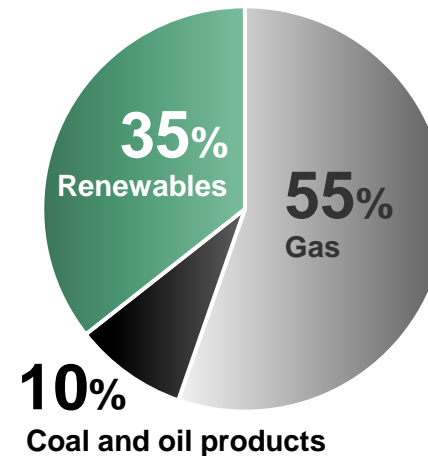
Italy keeps on being to dependent on foreign countries to satisfy its energy needs.

65% of electricity in Italy is still produced from fossil fuels, mostly from gas (95% being imported).

Renewables are the cheapest energy source.

In addition, 14% of our electricity consumption is covered by imported electricity.

Electricity generation in Italy in 2022



Italy can become more independent and competitive by exploiting the only national resources that produce sustainable electricity, being available in abundance and in a short time.

The transition to renewables is a roadmap to independence and national security, in addition to decarbonisation.

With the electrification of consumptions, more electricity is needed

It is only by increasing the share of renewables in the electricity mix that electrification will result in greater energy independence and lower emissions.

We forecast that **electricity demand will reach 360 TWh** in 2030 (net of increased consumption efficiency) driven mainly by economic growth, the spread of heat pumps for air conditioning, electric cars, and induction hobs.



Permits: we are the worst in Europe in terms of time and costs!

Several simplification measures and the efforts of the «PNRR-PNIEC» and «VIA-VAS» Commissions have improved a dramatic situation but have not solved the problem. This is because:

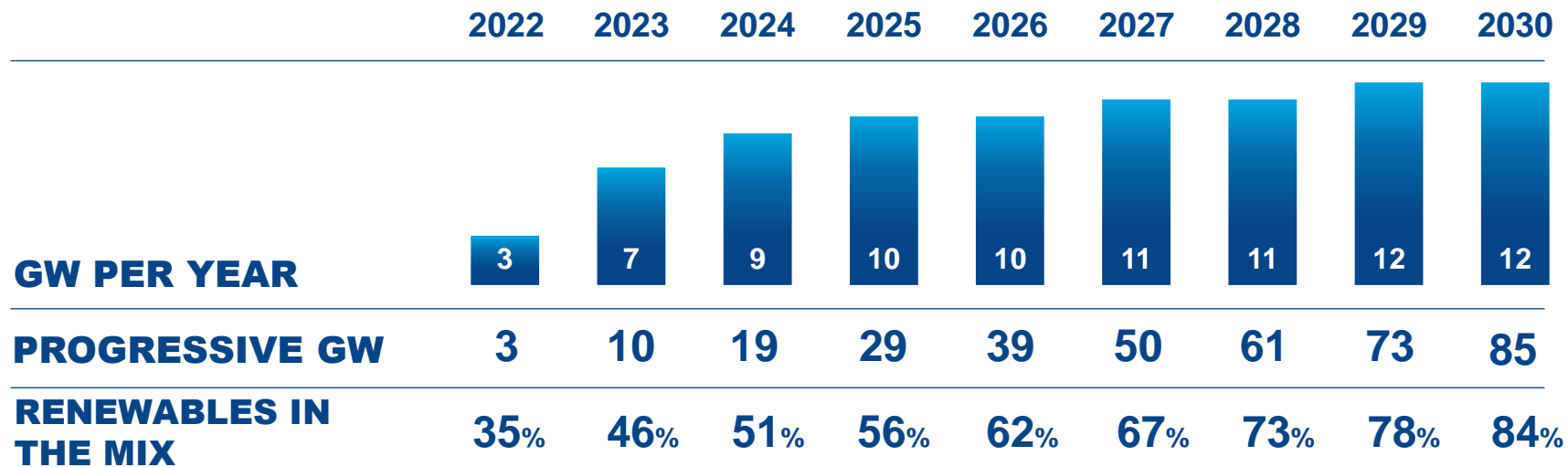
After obtaining the EIA, projects still have to go through a long and complicated chain of permits, in some cases even more than 30 approvals are needed.

Many projects are rejected by the regions or the cultural/landscape protection authorities in the name of landscape protection: if we do not cut CO2 emissions - quickly - we will no longer have any landscape to protect.

It still happens that the same rule is interpreted differently by different public entities, which makes it very difficult for companies to choose the correct course of action.



The 2030 Electricity Plan aims at connecting 85 GW of new renewables to the grid



With additional 85 GW, 84% of electricity will come from RES

(also taking into account the increase in electricity consumption)

The Plan also targets 80 GWh of new large-scale storage capacity.

The 2022-2030 Electricity Plan for Italy

Benefits for Italy

320
Billion €

INVESTMENTS
in the electricity
sector and its
value-chain.

360
Billion €

ECONOMIC BENEFITS
in terms of added value for
the supply chain and
related industries, and
growth in national
consumption.

-270
Million t CO_{2eq}

LESS CO_{2eq} EMISSIONS
from the electricity sector
over the 2030 Plan period.

540
Thousand

NEW JOBS
in the electricity sector and its
value-chain in 2030, which will
be additional to the current
120,000.

The benefits of the 2030 Plan are consistent with Bloomberg and IEA global forecasts

320Bn€ of investment in 2022-2030 amount to 1% of what Bloomberg New Energy Finance (BNEF) and the International Energy Agency (IEA) estimate for the global energy transition.

540,000 new jobs in 2030 represent 2% of the IEA's estimated total world job growth related to the energy transition.

Italy's 2022 GDP is 2% of the world's GDP.

Energy Transition Investment Trends 2023

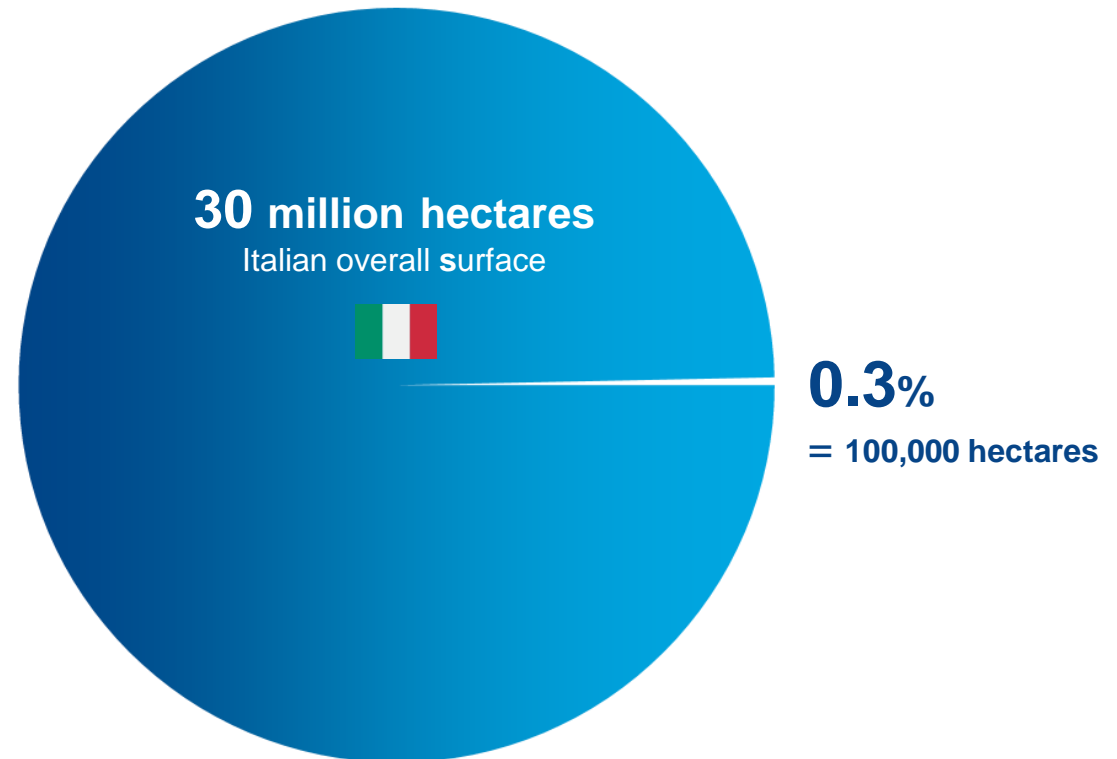
Tracking global investment in the low-carbon energy transition

January 2023



Installing 85 GW of new RES will require merely 0.3% of the Italian territory

According to a Terna-Snam joint study, the areas potentially suitable for the installation of renewables (all areas not being subject to morphological, regulatory or land-use constraints) are about 27% of the Italian surface area.





The electricity industry is working to make Italy more secure, independent and competitive!