

Wind Europe's End-of-Life Issues & Strategies Seminar 2020

Plenary Session: Repowering in EU countries, what are the frameworks in place?

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Repowering in Italy: status quo and perspectives

Alessio Cipullo

Head of European Affairs, Studies and HSE

We are the leading association of companies operating in the Italian electricity sector, accounting for over 70% of the electricity produced and consumed in Italy.

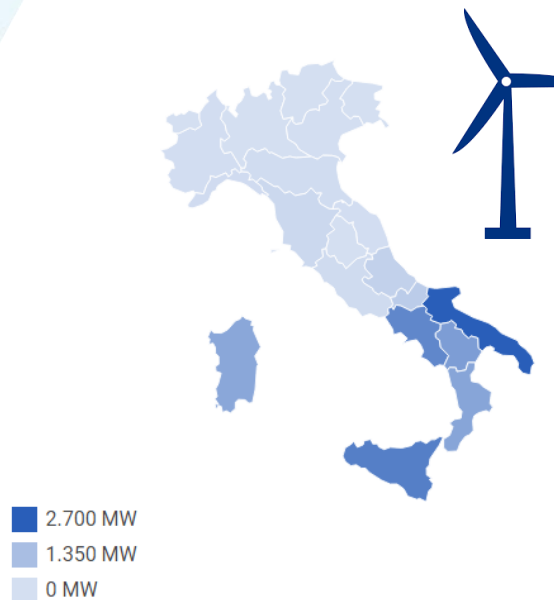
Over 500 companies have chosen Eletticità Futura. Our members are of all sizes, active in the production and marketing of electricity from conventional and renewable sources, in distribution and in the supply of services to the sector. Our members account for 75,000 MW of installed electrical generation capacity and 1,150,000 km of distribution lines.

Eletticità Futura is a member of Confindustria, Confindustria Energia, Eurelectric, SolarPower Europe, WindEurope, Bioenergy Europe, RES4Africa Foundation, Motus-E and Coordinamento FREE.

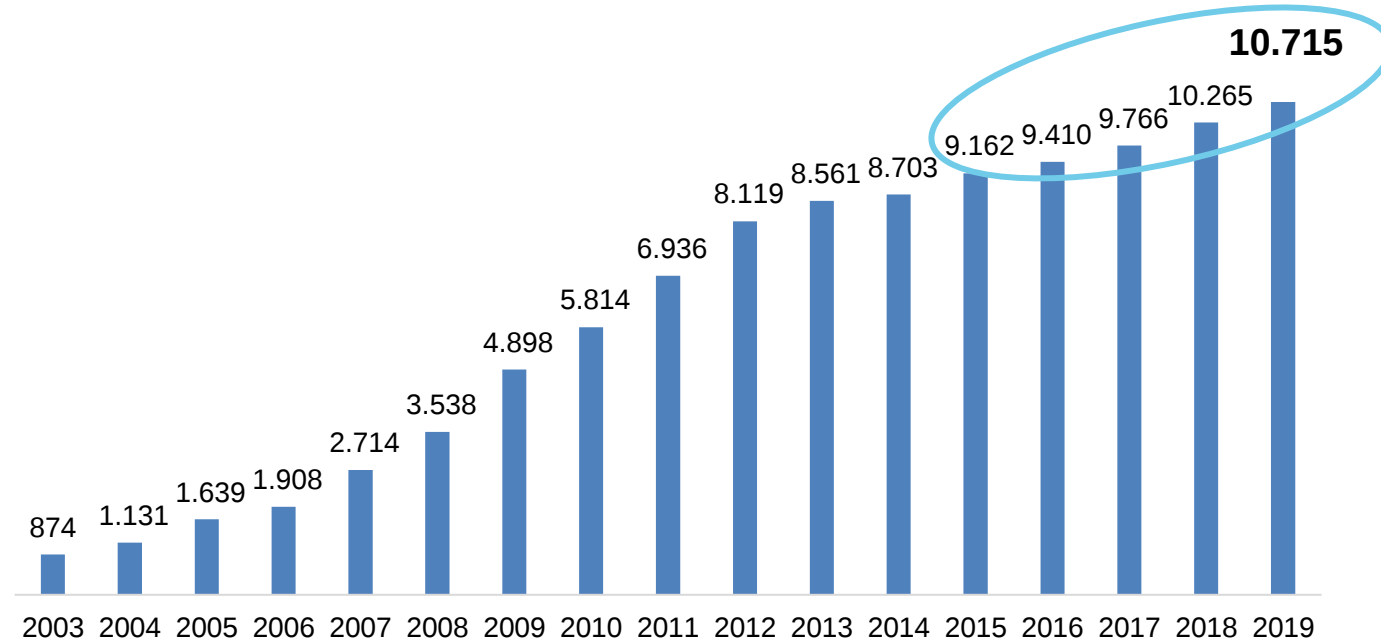
- **Wind Energy in Italy**
- **Repowering perspectives**
- **Current framework: challenges and opportunities**

Wind Energy in Italy

Geographical wind capacity
distribution in Italy



Cumulative wind capacity evolution in Italy [GW]

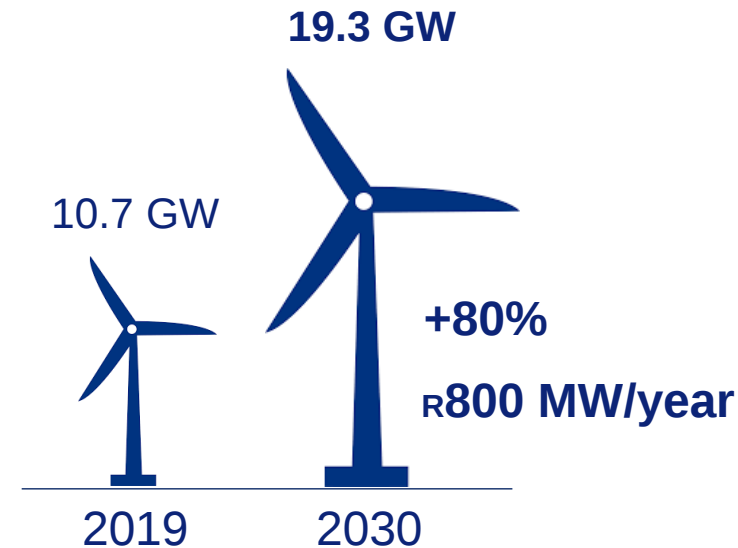


In the last five years, an average of **300 MW / year**
has been installed in Italy

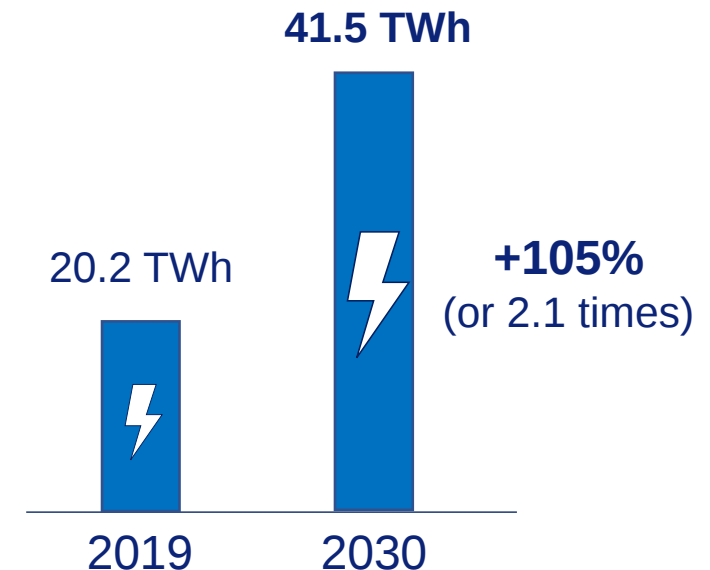
Source: Terna, GSE

Wind Energy in Italy

Evolution of the overall wind capacity according to the Italian NECP



Evolution of the overall wind energy production in Italy according to the Italian NECP



The installation rate will have to be multiplied by 2.6 to meet the current NECP targets and further increase in the **Green Deal** scenario

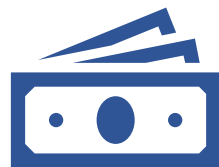
Source: Terna, GSE, Italian National Energy and Climate Plan (NECP) proposal submitted to EC in December 2019

Repowering Perspectives

Potential for repowering linked to the current wind 2030 NECP targets in Italy:

8 Billion €

additional investments



26 tons

avoided CO₂ emissions



4000

average new temporary
jobs per year in 2020-2030



2,800 MW/hectare

energy density compared to 1,000
MW/hectare before Repowering



The incremental repowered capacity could cover **over one third** of the additional power needed to meet the current NECP target in Italy

Source: data from Elettricità Futura's Members (assuming about 9 GW capacity potential for Repowering by 2030)



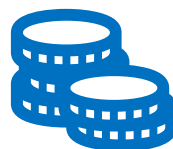
Permitting

The current framework: key challenges

According with RED II, it should take **1 year** (2 years in exceptional cases)

→ In practice, it regularly takes up to **4-5 years!** (same as **Green-Field Projects**), also leading to projects approved with obsolete technologies

Recent simplifications for *reblading* but any other repowering/revamping is considered a “**substantial**” change (even for power reductions!) → **lengthy and complex authorisation process**



Support Schemes Constraints

→ The “**Spalma-incentivi volontario**” has been overcome recently, removing the main barriers for repowering/revamping projects to access support schemes. However some limitations and penalties remain.



Retroactive Changes

→ such as **extra unplanned constraints**, for example due to the creation of Natural Parks/environmental constraints after wind farms had been installed

Concluding remarks



- To achieve the Italian NECP wind target, wind capacity in Italy will have to increase up to **19.3 GW** (+80% vs 2019) The installation rate will have to double to meet the current NECP targets and further increase **in the Green Deal scenario**
- Repowering can account for **over one third of the capacity additions** and can benefit from a **unique feature**: it can multiply wind power production without any need of new land, making it **one of the smartest investment in green power generation**



- Repowering holds **strong industrial potential**, which can lead up to **8 Billion€** investments and **4000 jobs/year** creation in Italy by 2030



- Some **decisive steps forward will have to be taken**:
 - Introducing *clearer and uniform rules* as well as *simplified procedures* to promote:
 - **Lifetime Extension** and **Repowering** projects
 - **Upgrading technology** for approved but not yet realised projects
 - Introducing *effective measures to reduce permitting timescale* (e.g. penalties, “tacit approval”), thus adopting the provisions on authorization timing stated in the RED II
 - Creating a *fair level playing field with green-field installations*, particularly for *participation to support schemes*

Alessio Cipullo
Head of European Affairs, Studies and HSE
alessio.cipullo@elettricitafutura.it

