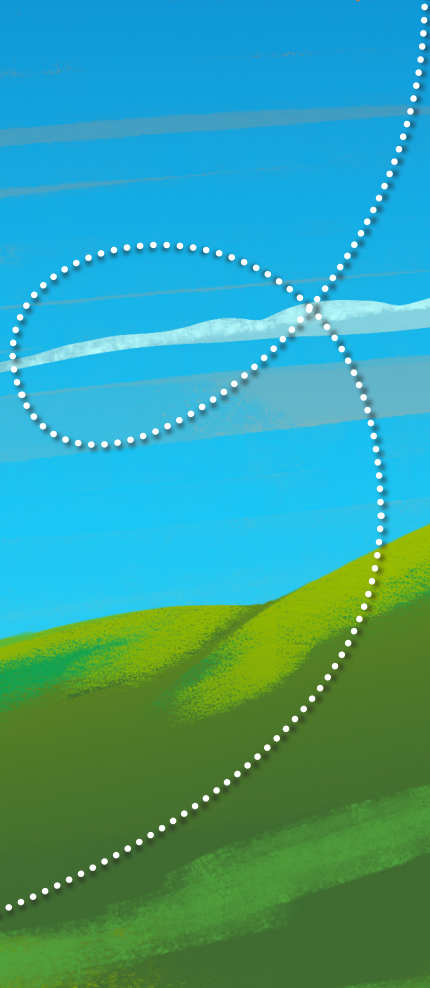


2021



Anev 
associazione nazionale energia del vento

2 ANEV - ASSOCIAZIONE NAZIONALE ENERGIA DEL VENTO

ANEV - Associazione Nazionale Energia del Vento (National Wind Energy Association) – is the environmental protection association, recognised pursuant to Law no. 349 of 8 July 1986, set up in July 2002, which brings together around 95 companies representing the national wind energy sector in Italy and abroad, including producers and operators of electricity and technology, plant designers, engineering and environmental studies, electrical traders and developers who operate in compliance with the Association's rules and regulations. ANEV is the Italian Association adhering to the corresponding European and World associations such as **WWEA-GWEC-WindEurope**, it also adheres to **ASVIS, UNI, CEI, AIEE**, is a member of the **FREE Coordination, the Foundation for Sustainable Development of the National Council for the Green Economy and the Kyoto Club**. The Association's aims include contributing to the promotion and use of wind energy in a balanced relationship between settlements and nature, as well as promoting research and technological development aimed at the use of wind resources and the rational use of energy, and the dissemination of accurate information based on real data. The objective of reconciling the development of clean energy production with the necessary safeguards for

the enhancement and protection of the territory has led **ANEV** to undertake close cooperation with the main environmental associations, which has led to the signing of a Memorandum of Understanding with **LEGAMBIENTE, WWF and GREENPEACE** aimed at disseminating wind energy while protecting its proper inclusion in the landscape. Moreover, **ANEV**, together with Legambiente, Greenpeace and the Kyoto Club, has drawn up and signed a Manifesto for the development of offshore wind energy in Italy, with due regard for environmental and landscape protection, to ensure that the wind energy present in the Italian seas can be exploited to the full, contributing to the decarbonisation of our country and its energy self-sufficiency, while safeguarding economic activities and marine ecosystems. Thanks to its specific experience and the high level of professionalism of its members, **ANEV** is a privileged partner in the desired process of cooperation with the institutions and all the media that are sensitive to environmental issues and interested in the dissemination of a correct narrative based on scientific analysis of the data disseminated. Moreover, **ANEV** has signed a protocol with UIL, aimed at supporting the development of wind energy in our country and carrying out specific initiatives to enhance employment and training aspects.

ANEV is the Italian member of:

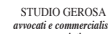


ANEV actively collaborates with the following technical-scientific associations:



ANEV has signed a Memorandum of Understanding for the dissemination of wind energy and its proper inclusion in the landscape with Legambiente, WWF and Greenpeace

ANEV also provides services to its Members through agreements and protocols signed with:



Monthly magazine that hosts ANEV's newsletter:





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4 ANEV - NATIONAL WIND ENERGY ASSOCIATION

ANEV TARGETS

ANEV collects, processes and disseminates data in order to facilitate the knowledge and understanding of issues related to the use of the wind source; it aims to promote the use of wind energy in a balanced relationship between settlements and nature; it aims to promote research and technological development of wind power and the consequent rational use of energy; it emphasizes the environmental value of the production of electricity from wind and renewable sources as a function of energy saving and reduction of pollutants, which cause local and global environment degradation and climate change; it carries on the commitment to establish relations with public institutions in order to better represent the aims of the Association and its members also through membership of other bodies, organizations and associations.

WIND ENERGY DATA

Saving of raw materials

Wind energy is the energy of the future, available today. The production of wind energy takes place through the use of an advanced and extremely reliable technology, which allows to effectively exploit a renewable resource, always available, natural and clean.

In 2020 our country produced 18.06 TWh from wind power, which is equivalent to the needs of about 20 million people and a saving of about 12 million tonnes of avoided CO₂ emissions and 25 million barrels of oil.

The exploitation of wind reduces the production of CO₂ and other pollutants in the atmosphere from the use of fossil fuels and avoids the burning of tens of millions of barrels of oil, making an important contribution to the fight against climate change; it avoids the country from importing very valuable energetic raw materials and building other energy infrastructures that have an impact on the territory and populations.

Security of supplies

A decisive use of renewable sources also makes it possible to increase energy security, reduce foreign dependence, reduce price fluctuations, reduce geopolitical risk, improve the trade balance of our country and develop employment and technological innovation. Italy is an importer of electricity for more than 13% of its needs, and an importer of more than 80% of raw materials for energy production, so the growing contribution of wind power in terms of production can help to reduce this deficit, which is among the highest in the world.



Employment

Wind power brings benefits in local, national and international economic terms, supporting the development of the local workforce, the creation of jobs both on the side of the producer/investor and indirectly through suppliers.

From the joint study ANEV - Uil on employment potential it emerged that, if 19,300 MW of wind power plants were installed in Italy, it would contribute to increasing employment with 67,200 jobs, distributed in large percentage in the South, where unemployment is higher. In Italy wind power creates every year a financial flow of about 3,5 billions of euro between direct and indirect investments and counts today more than 27,000 employees.

ANEV ACTIONS

ANEV includes among its members most of the companies of the sector and counts among its main activities the **dissemination of reliable data and scientifically based information**; the elaboration of **studies on energy issues and wind energy**; the participation in **technical committees for the dissemination of renewable energy sources**; the cooperation with institutions in the consultative phase; the coordination with environmental associations; the communication activity for the dissemination of renewable energy sources, in particular wind energy; the analysis of the regulations supporting renewable energy sources, in particular wind energy; representation of the sector in the processes of defining the legislation that regulates the sector at institutional level; organisation and participation in conferences and events, training courses, organisation of journalistic awards; membership of Coordination FREE, Elettricità Futura, WindEurope, GWEC, WWEA, ISES, KYOTO Club, CEI, AIEE; development of memoranda of understanding and activities to protect fauna such as the National Observatory on wind and birdlife.

INSTITUTIONAL ACTIVITIES

ANEV is present in numerous technical and institutional working groups, where the national legislative landscape in the field of renewable energies and wind power is discussed.

It participates in working groups set up by the Ministries of Economic Development (MISE) and the Environment (MATTM, now MITE), is part of the Coordination for Environmental Protection Associations and is involved in the preparation of technical regulations of the National Institutes UNI and CEI concerning wind power plants.

It has set up a permanent technical round table with the GSE to discuss regulatory aspects of the renewable energy sector, which is reserved for ANEV, in order to foster mutual cooperation between the two parties, mitigate any risks of contradiction and improve communication between ANEV and the GSE. ANEV also provides support to its members with legislative updates, legal and administrative activities. ANEV is also present at the consultation table of TERNA's users, as provided for in Article 1, paragraph 4, of the Prime Minister's Decree of 11 May 2004 and in the Grid Transmission, Dispatching, Development and Security Code.

ANEV has set up a round table with ENAV and ENAC to discuss the main and most topical issues relating to authorisation procedures.

Working Groups

The association's activities are also carried out through thematic Working Groups (WG) open to all members. The groups currently active are: the Regulatory WG, the Communication WG, the Labour, Finance and Taxation WG, the Market WG, the Small Wind Energy WG, the HSE WG, the O&M WG, the Technology WG and the Off-shore WG.

5 MEMORANDA OF UNDERSTANDING



PROTOCOL FOR THE CORRECT TERRITORY INTEGRATION OF THE WIND ENERGY WITH LEGAMBIENTE AND GREENPEACE

ANEV signed with Legambiente and Greenpeace the memorandum of understanding for the proper insertion of wind farms in the territory, which still represents a reference for institutions and companies in the wind energy sector.

Here are some of the main points: definition of the study areas; histor-

ical-environmental survey; attendance of the landscape; effects and impacts; height of the wind towers; shape of the wind towers; color of the wind towers; plant scheme; site activities; final arrangement of the area; maintenance of the plant; divestment and ex ante restoration of the area.

RESPECTING THE ENVIRONMENT

The abatement of impacts is based on the use of best technologies and complying with:

- Technical rules roads related
- Management safety rules
- Power lines rules
- Environmental Restrictions on decommissioning
- Territorial settlements, road infrastructure and maneuvering stopping places
- Acoustic impact analysis
- Aerodynamic field disturbance in the generator park area
- Telecommunications interferences
- Visual and landscape impact

VISUAL AND LANDSCAPE IMPACT

Landscape focus is put into effect by the implementation of procedures emerged by the analysis of:

- Definition of the study areas
- Historical and environmental survey
- On-the-spot survey
- Effects and impacts
- Wind towers height, shape and color
- Wind farm layout
- Construction sites activities
- Final area plant
- Wind farm maintenance
- Dismissions and reinstatement



MEMORANDUM OF UNDERSTANDING BETWEEN ANEV AND GSE



The agreement with the GSE is aimed at the joint implementation of activities to support the development of the wind sector. Within the technical table, in fact, the GSE provides, at the request of ANEV, information and clarifications that will be shared with its members. The relationship of mutual collaboration between the two subjects makes it possible to facilitate the pursuit of the common intent of promoting renewable energies, to mitigate any risks of contradiction and to improve communication between ANEV and GSE.

ANEV is committed to disseminating to its members the application rules defined by the GSE and to collect and convey to the Manager himself any problems encountered by the same members. In turn, the GSE guarantees the establishment of a telematic channel dedicated to ANEV in order to provide specific assistance and technical support.



MEMORANDUM OF UNDERSTANDING BETWEEN ANEV AND INAIL



ANEV has signed a Memorandum of Understanding with Inail following the work of the Association's HSE Working Group.

In order to concretely affect the levels of health and safety of workers, ANEV and Inail have set themselves the goal of achieving the initiatives summarized below: elaborate Guidelines for the implementation of an Occupational Health and Safety Management System aimed at ensuring the continuous improvement of the conditions of workers in the wind energy sector; to carry out in-depth studies on the specific nature of professional risks in the wind farm, as well as the risks arising from the use of wind machines; develop and test good practices with reference to the working activities of the sector; realize with specific conventions possible training courses.



LEGALITY PROTOCOL WITH CONFINDUSTRIA AND MINISTRY OF THE INTERIOR

The national wind energy entrepreneurs united in ANEV have formally adhered to the Protocol of Legality signed by the President of Confindustria Marcegaglia and the Minister of the Interior Maroni in 2010. ANEV has adhered with determination to the initiative that Confindustria together with the Ministry of the Interior have developed to help the entrepreneurs of the confederation of industrialists to fight and reject every possible case of malpractice and to denounce any behavior contrary to the due respect of legality. Being a member of ANEV means today having a further certification of compliance not only with the best practices, but also with the best procedures to avoid possible intrusion by crime in the sector.



MEMORANDUM OF UNDERSTANDING BETWEEN ANEV AND ELETTRICITÀ FUTURA



The Memorandum of Understanding with Elettrocità Futura has been signed in order to renew and confirm the commitment made in recent years to meet the important challenges that await the electricity sector, such as market design reform, decarbonisation of the system, smart grids and electrification of consumption. Indeed, the objective is to initiate coordinated activities on issues of common interest aimed at presenting unitary positions to institutional interlocutors through the creation of a Coordination Committee, with the aim of ensuring the best representation to the sectors of competence.



MEMORANDUM OF UNDERSTANDING BETWEEN ANEV AND UTILITALIA

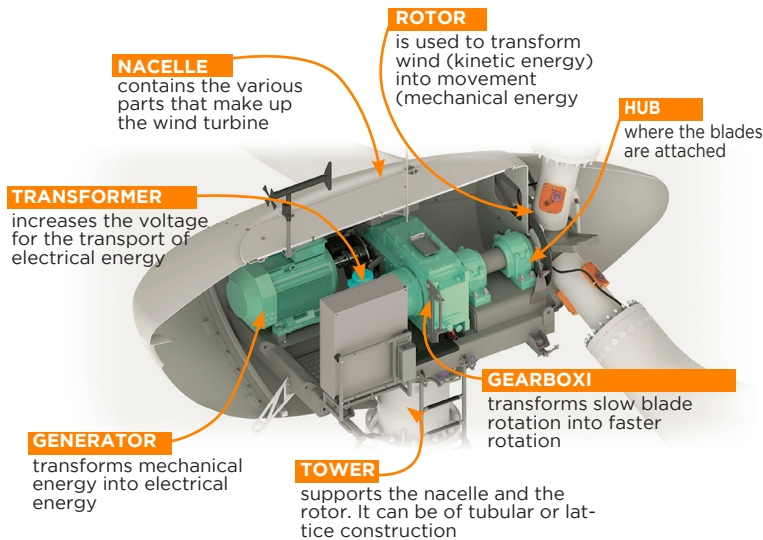


Among the objectives of the Memorandum of Understanding with Utilitalia are the sustainable development and correct application of the renewables sector, simplification of the regulatory framework, dissemination of the best technologies for wind production and energy distribution, innovation, research and industrialization, promotion of cooperation both at national and international level. The document implies a common commitment for the sharing and exchange of information, for the organization of seminars as well as common initiatives for educational training.

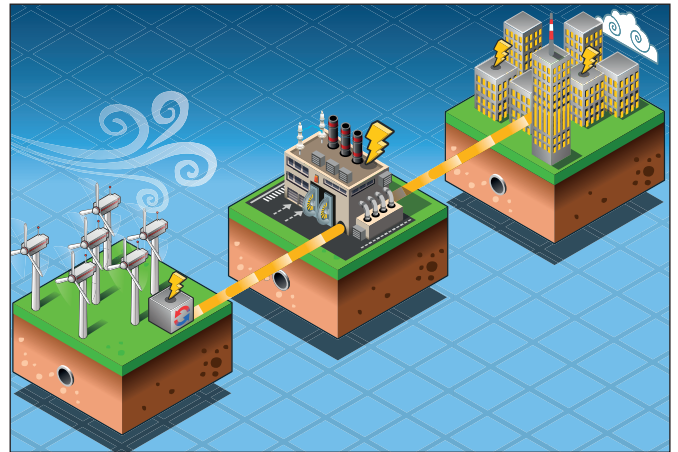


6 HOW WIND POWER WORKS

Humans have been using wind energy for a long time, kinetic energy since thousands of years with boats, mechanical energy for hundreds of years with windmills, and electrical energy for decades with wind turbines. The first uses date back to almost a thousand years BC, when in Persia machines were built that were capable of working thanks to the wind as water pumps to irrigate the land. Today, wind is used to create clean energy, inexhaustible, efficient, endogenous energy that does not require energy infrastructure for extraction, refining and transport, without producing climate-changing emissions and



waste of any kind. This is currently possible thanks to modern wind turbines which have reached extremely advanced levels of reliability, silence and respect for the environment. These are machines that are set in motion using the kinetic force of the wind, transforming it thanks to an electric generator into electrical energy. The amount of energy that a turbine can produce depends on the intensity of the wind and the size of the blades that nowadays all have limited rotational speed to ensure a very high level of safety. We can say that wind energy is energy with a high technological content, available today. It is both the present and the future, the future of the planet and of new generations.



● INSTALLABLE WIND POTENTIAL

In identifying potential sites, not only certain environmental, territorial and landscape constraints were taken into account, but also further additional design and environmental protection measures that companies associated with ANEV must follow in the construction of a wind farm. Below are some rules for the development of a **“good wind farm” project (provided for in the Protocol signed by ANEV with Legambiente and Greenpeace):**

- ▶ **EXCLUSION OF AREAS OF PARTICULAR LANDSCAPE VALUE;**
- ▶ **LANDSCAPE ATTENDANCE AND ANALYSIS OF TERRITORIAL SPECIFICITIES;**
- ▶ **EVALUATION OF VISUAL IMPACTS FROM POINTS OF INTEREST WITH PHOTO-SIMULATIONS;**
- ▶ **CHOICE OF THE TYPE OF SUPPORT IN ORDER TO MINIMIZE THE VISUAL IMPACT;**
- ▶ **CHOICE OF THE WIND TURBINE ALSO ON THE BASIS OF ITS HEIGHT;**
- ▶ **INDIVIDUATION OF THE BEST POSSIBLE CHROMATIC SOLUTIONS;**
- ▶ **TOTAL DISMANTLING AT THE END OF THE LIFE CYCLE AND RESTORATION TO THE EX ANTE SITUATION.**

As a precautionary measure, therefore, the realizable potential has been derived, which is based on scientific criteria and data, drawn from the experience of member companies. **The results of the study identify 19.3 GW of wind power potential installable by 2030, which would correspond to an annual production of electricity equal to 42,7 TWh, or considering the entire Italian population, about 661 kWh per capita in a year;** such value would identify a percentage of wind production on consumption (CIL, Gross Internal Consumption) greater than 10%.

A particularly interesting fact that emerged from the study concerns the possible location in the South of most of the plants still to be installed. Indeed, central-southern Italy is particularly suitable to host wind power plants.



7 ENVIRONMENTAL BENEFITS

In 2019, installed wind power surpassed 10.5 GW, which allowed to produce an amount of clean energy of about 18TWh, with savings of more than 20 million barrels of oil and more than 10 million tons of CO₂ emissions saved.

To fully evaluate the environmental benefits deriving from the choice of wind energy it is appropriate to consider not only the phase of operation of the plant but the entire life cycle of the same ("from cradle to grave"), that is, to evaluate both

energy consumption and atmospheric emissions generated by the phases of:

- ▶ **COMPONENTS PRODUCTION**
- ▶ **ON-SITE TRANSPORT**
- ▶ **CONSTRUCTION**
- ▶ **OPERATION MANAGEMENT**
- ▶ **PLANT DECOMMISSIONING AND RESTORATION OF PRE-OPERATING CONDITIONS**

THE LIFE CYCLE ASSESSMENT (LCA) TOOL

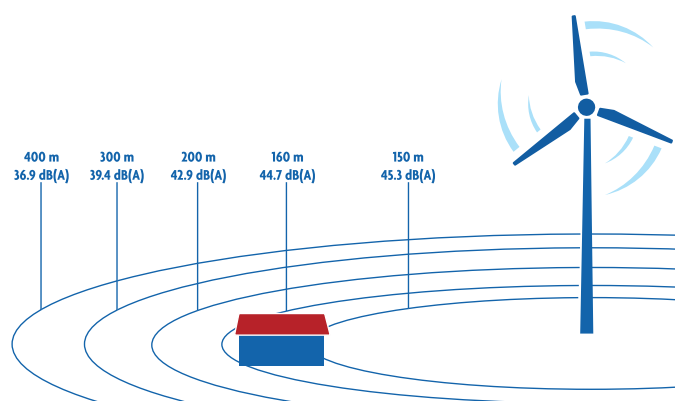
The tool used for this type of analysis is the Life Cycle Assessment (LCA). Through the LCA it is possible to quantify through indices of environmental performance, the actual long-term impact of a good, a product or a technology by analyzing the entire life cycle from the supply of the raw material until the use of the product itself and its final disposal. In the particular case of a wind plant it is interesting to evaluate two substantial aspects, the share of CO₂ produced in the entire life cycle (for a 2 MW turbine, considering the Italian energy mix is equal to about 1,920 tCO₂) and the energy pay back time (EPBT), i.e. the time needed to reach equilibrium between the energy spent for the phases of extraction, production, design, transport, installation, future decommissioning / recycling of the project, and the energy produced during its operation. It is estimated for a wind turbine an average EPBT around 9 months. After 9 months therefore a wind turbine has already produced the energy needed for its entire life cycle, from the extraction of the raw materials necessary for its construction, up to the disposal of the last component. Concerning the phase of disposal it is interesting to note that only a small part ends up in landfills:

STEEL	90%	REUSABLE
RUST-FREE STEEL	90%	REUSABLE
CAST IRON	90%	REUSABLE
COPPER	95%	REUSABLE
ALUMINIUM	90%	REUSABLE
PLASTIC - PVC	100%	LANDFILL
GLASS FIBERS	100%	LANDFILL
OIL	100%	INCENERATED
LEAD	90%	REUSABLE
ZINC	90%	REUSABLE

● NOISE ANALYSIS

Effect

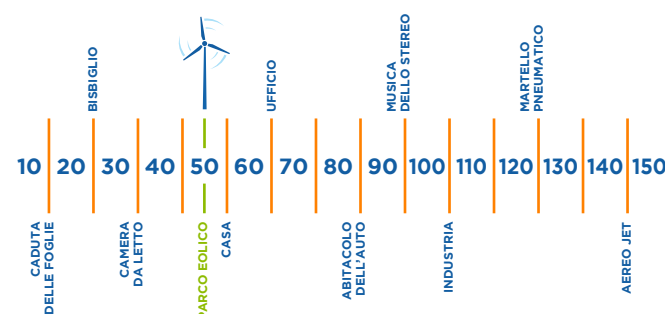
The most resounding noise produced by a wind turbine is due to the friction of the air with the blades and the support tower, while modern machineries placed on the platform are extremely quiet. The ground noise perceived where the plants are located, is strongly influenced by the wind: the higher the wind speed is, the more likely the windmill noise is disguised by the ground noise.



Long-distance Mitigation

The minimization of the impacts is made through preventive studies and the application of design foresights, which allow to identify some layouts able to prevent disturbances. To achieve the above, sound level measurements on the noise level and type as well as a plant noise prediction are made. The application of the results of complex mathematical models ensures the compliance to the limits provided for by law.

WTG Noise compared with other sources



8 WIND POWER IN ITALY, EUROPE AND THE WORLD

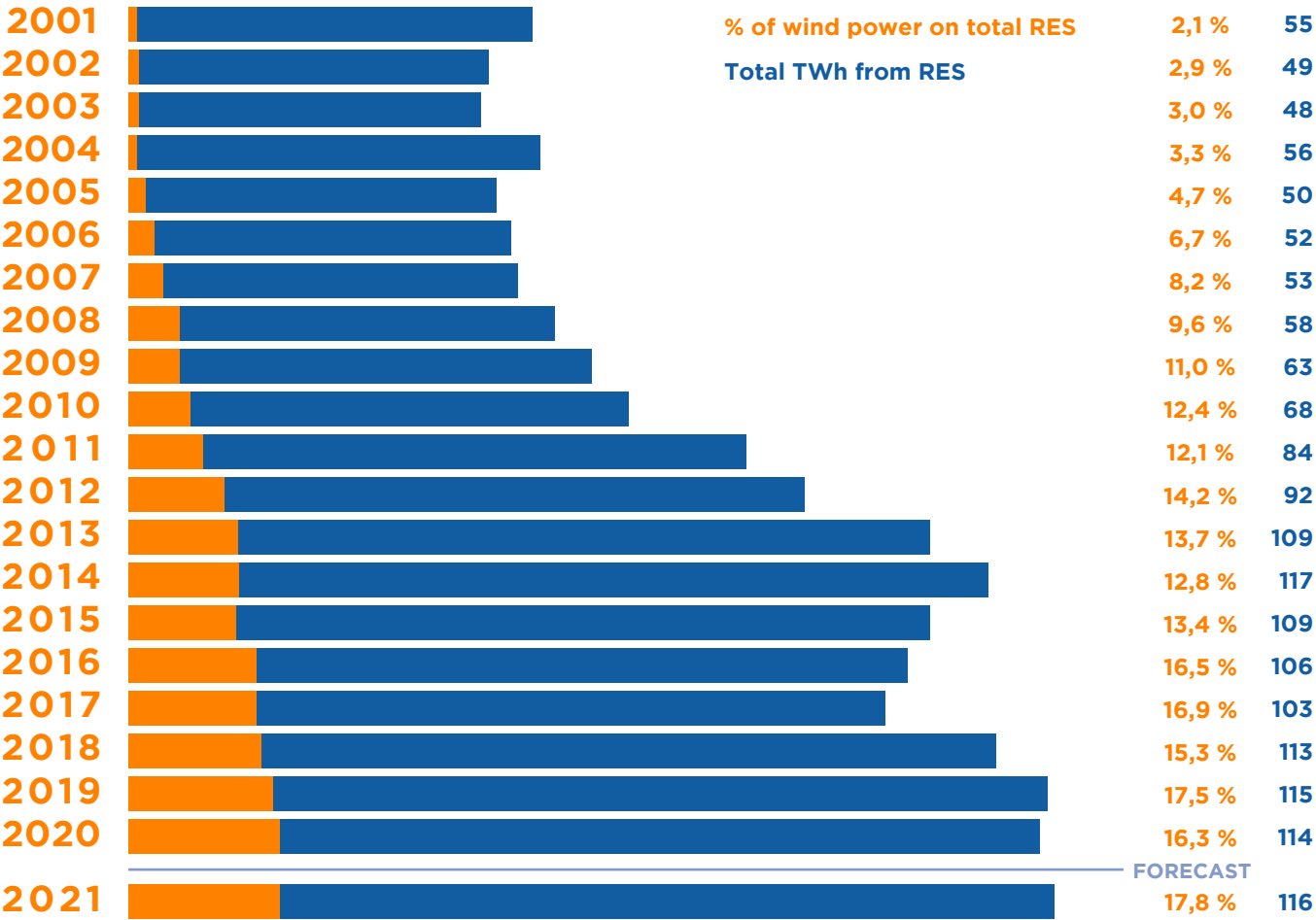
The benefits deriving from the attainment of the international objectives assumed by Italy would entail enormous savings, also in economic terms, deriving from the non-use of fossil fuels and the non-payment of penalties. In order to achieve this goal, it is necessary, within a certain regulatory framework, to equip ourselves with the instruments necessary at national and regional level. Less energy dependence is equivalent to greater weight on the international stage.

Italy has already achieved its 2020 renewable energy targets a few years in advance, with a penetration of 17.5% of total consumption in

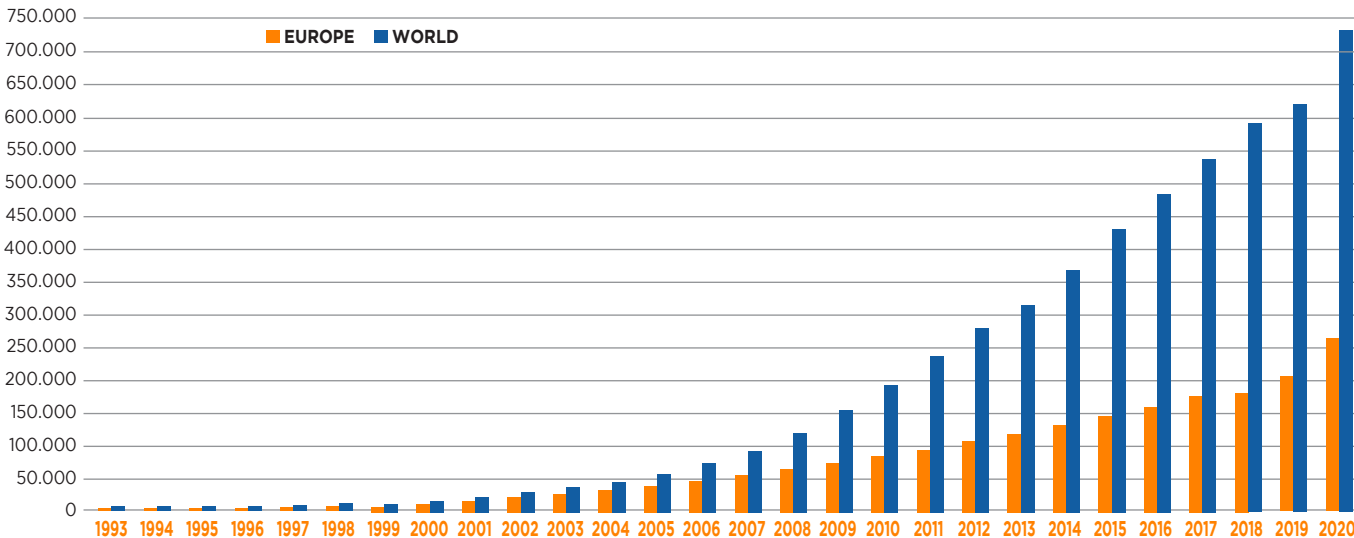
2015 compared to a 2020 target of 17%. The objective identified by the National Integrated Energy and Climate Plan (PNIEC) drawn up by the government, to be achieved by 2030, ambitious but achievable, is 30% of renewables on total consumption to be declined in:

- ▶ electric renewables at 55.4% by 2030 compared to 34% in 2017, wind power is expected to contribute 41.5 TWh to 2030
- ▶ thermal renewables at 33.9% in 2030 compared to 20% in 2017
- ▶ renewables in transport at 22% to 2030 compared to 5.5% in 2017

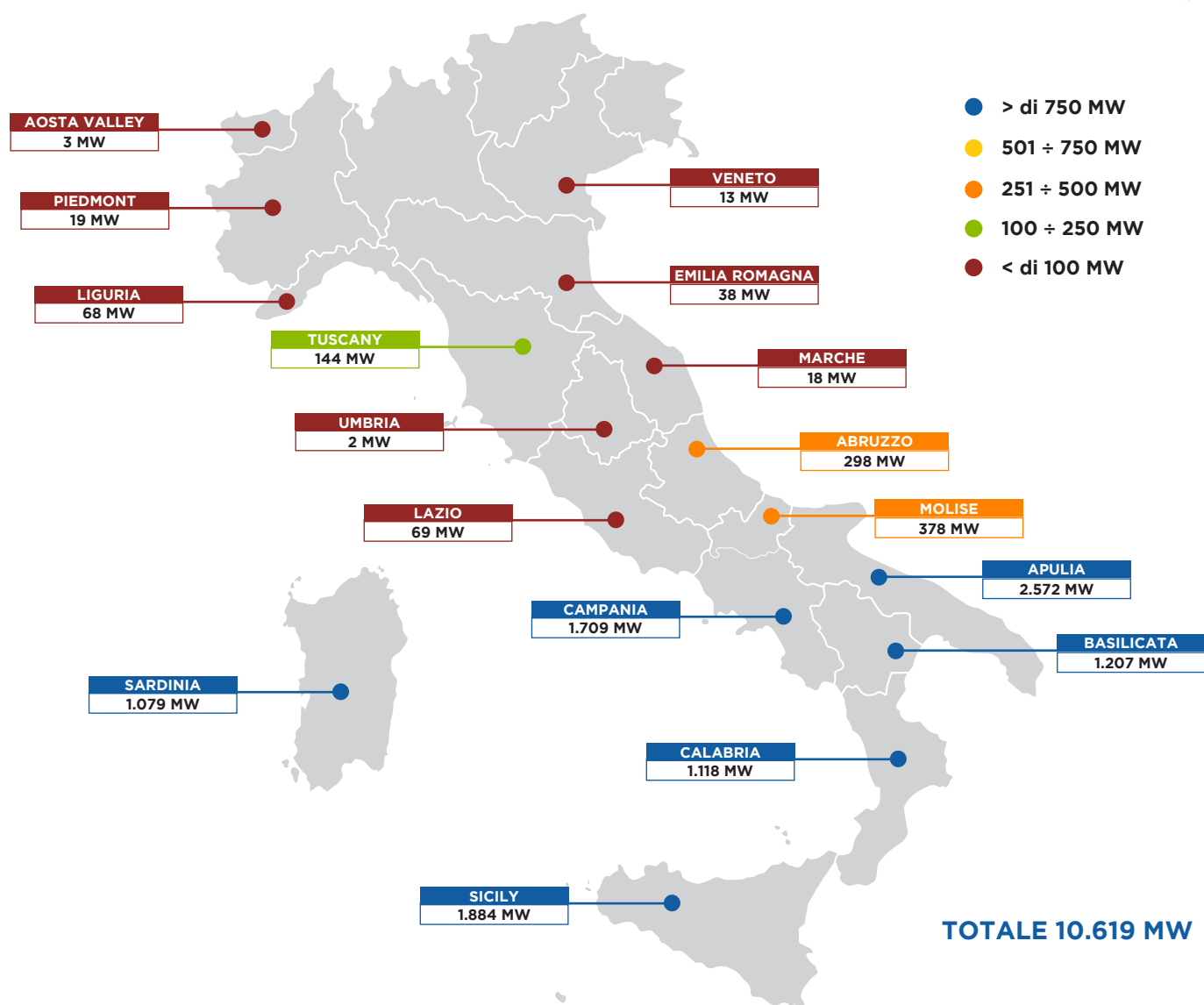
PRODUCTION FROM WIND SOURCES IN RELATION TO TOTAL RENEWABLE SOURCES (historical and forecast data)



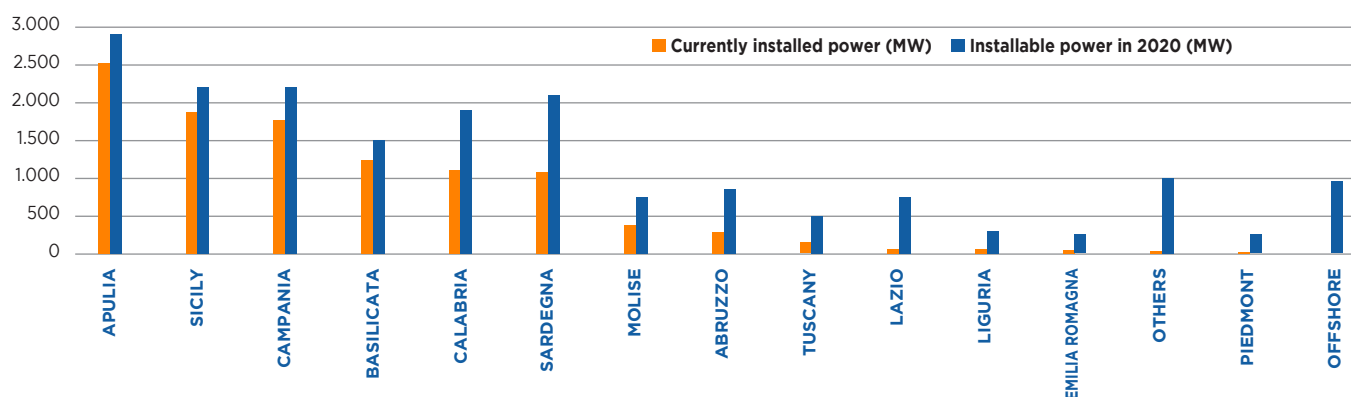
WIND POWER GROWTH FROM 1993 TO 2020: comparison of European and global installed capacity (in MW)



9 THE POWER INSTALLED ON THE NATIONAL TERRITORY

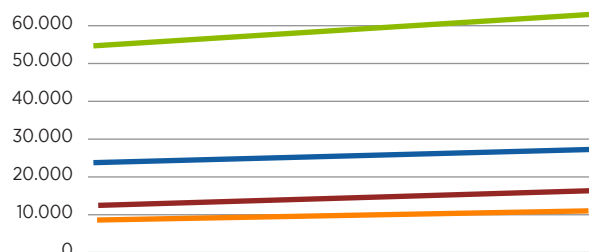


WIND POWER IN ITALY: INSTALLED AND POTENTIAL



TOTAL INSTALLED POWER, TREND FORECAST TO 2022 AND COMPARISON WITH SPAIN AND GERMANY

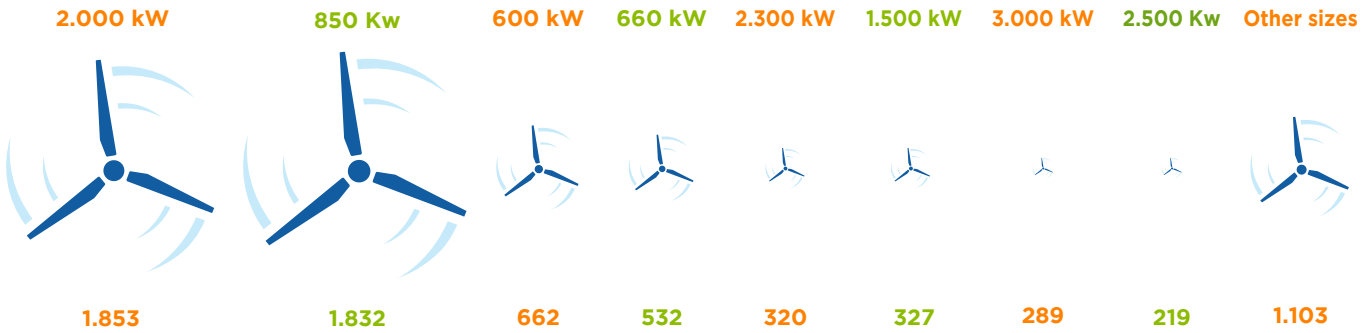
	2017	2018	2019	2020
SPAIN	23.170	23.494	25.808	27.264
GERMANY	56.132	59.311	61.357	62.627
ITALY	9.496	9.943	10.527	10.619
ITALY 2019-2022	13.700	14.700	15.052	16.127



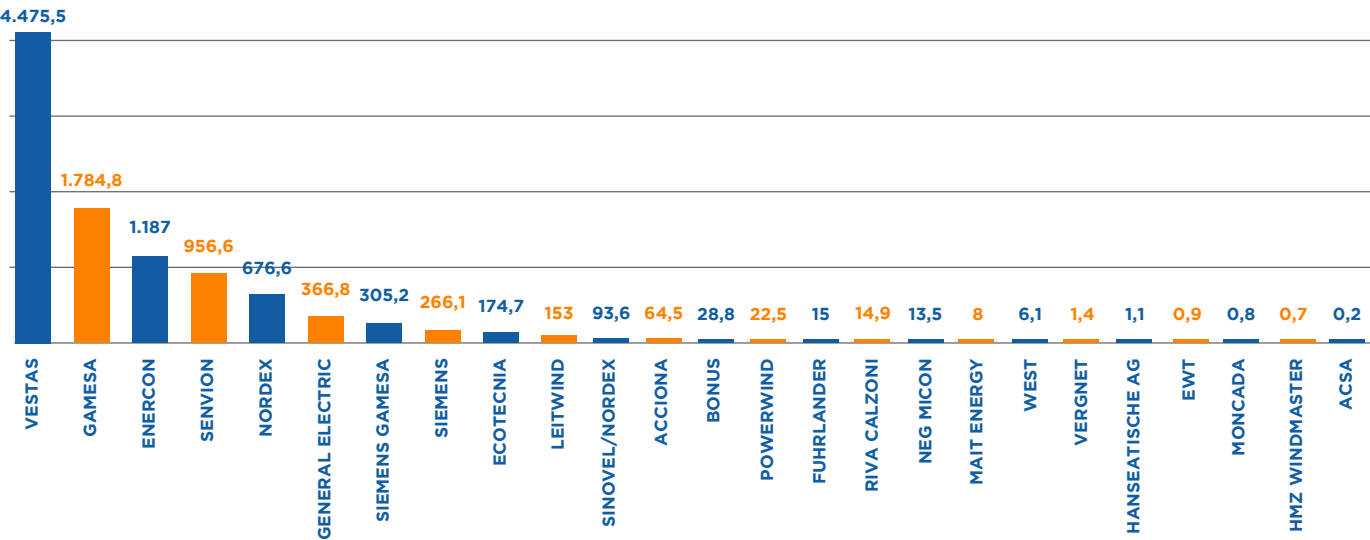


10 OPERATORS ON THE NATIONAL TERRITORY

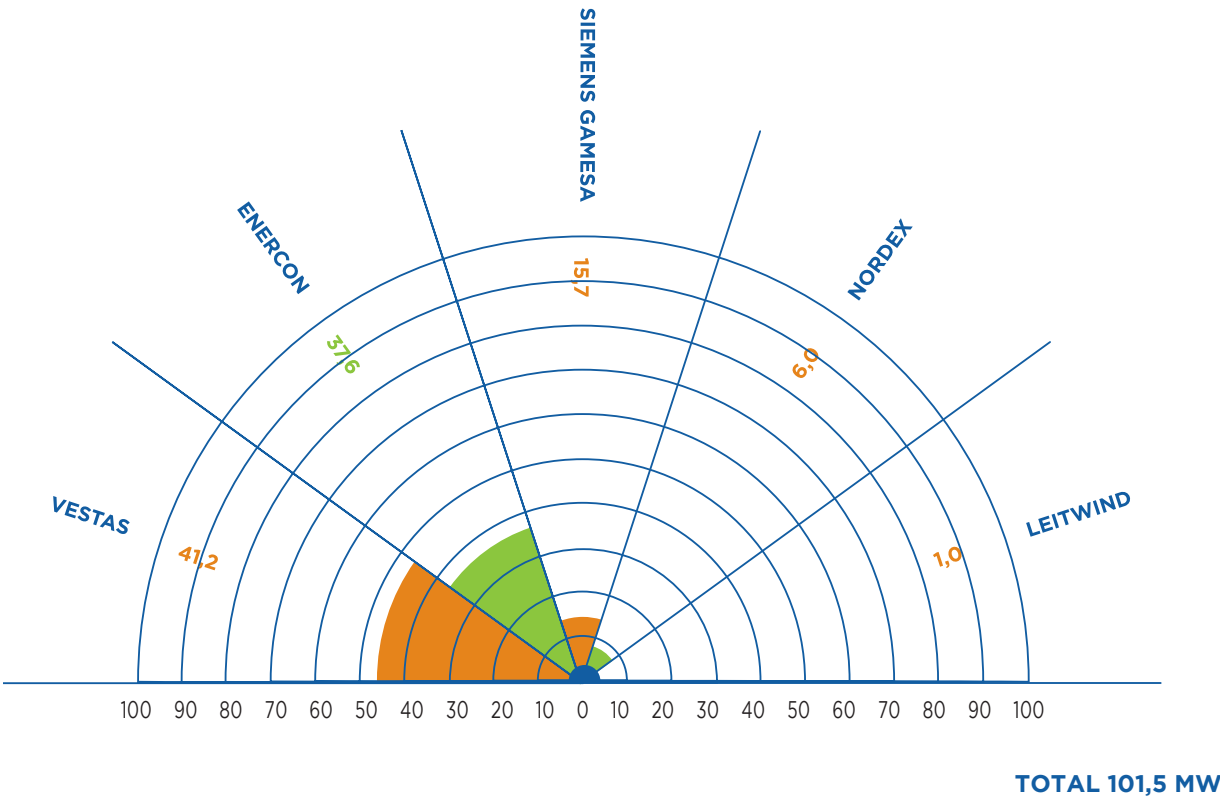
BREAKDOWN OF WIND TURBINES BY POWER AS OF 2020



BREAKDOWN OF WIND TURBINES BY MANUFACTURER IN MW AS OF 2020



INSTALLED IN 2020



11 OPERATORS ON THE NATIONAL TERRITORY

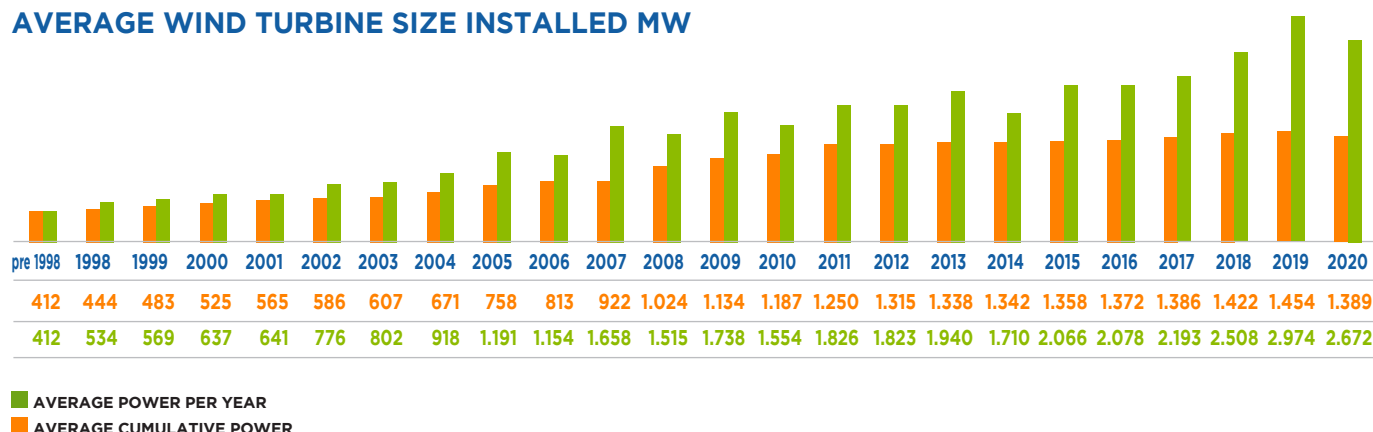


TOTAL INSTALLED AS OF 2020

GRUPPO ERG	1.106,10
ENEL GREENPOWER	782,00
E2I ENERGIE SPECIALI	758,38
ALERION	360,21
FRI-EL	347,71
MARGHERITA	337,92
RWE	328,10
ARDIAN	316,03
FALCK RENEWABLES	312,30
F2I SGR	282,35
ENGIE ITALIA	279,75
GLENMONT	274,65
GRUPPO IVPC	271,80
BKW ITALIA	224,50
EDF EN ITALIA	207,50
PLT ENERGIA	201,89
EDP RENEWABLES ITALIA SRL	195,70
ALPIQ	193,00
INERGIA	182,60
ACCIONA	155,80
CUBICO SUSTAINABLE INVESTMENTS	98,90
VENTUNO	96,00
SARDEOLICA	96,00
GREENTECH	93,30
CVA	89,35
FORTORE ENERGIA	88,43
ASJA AMBIENTE ITALIA	82,07
EUROWIND	79,50
ALLIANZ	72,00
MONCADA	71,30
AXPO	66,00
REPOWER	65,10
WHYSOL	63,60
FINPOWER WIND S.R.L.	60,00
DOTTO MORCONE SRL	57,00
INNOGY	56,99
ICQ HOLDING	56,00
GRUPPO ENERGIA & SERVIZI	53,85
HELVETIC WIND ITALIA (GRUPPO BKW)	52,00
ALISEA SRL	51,62
COVER	50,00
GOLDEN AGRI RESOURCES	48,00
EOLICA SAN LUPO SRL	48,00
FERA	47,19
BREATHE ENERGIA IN MOVIMENTO SRL	46,20
LUCKY WIND	42,08
EOLICA CANCELLARA SRL	42,00
NOVENERGIA GROUP	40,80
BEL LAVELLO VI.GI SRL	39,60
LUCANIA WIND ENERGY SRL	39,00
GRUPPO TOZZI	38,00
TOZZI SUD SPA	37,95
OTHERS	1.533,00

TOTAL 10.619 MW

AVERAGE WIND TURBINE SIZE INSTALLED MW

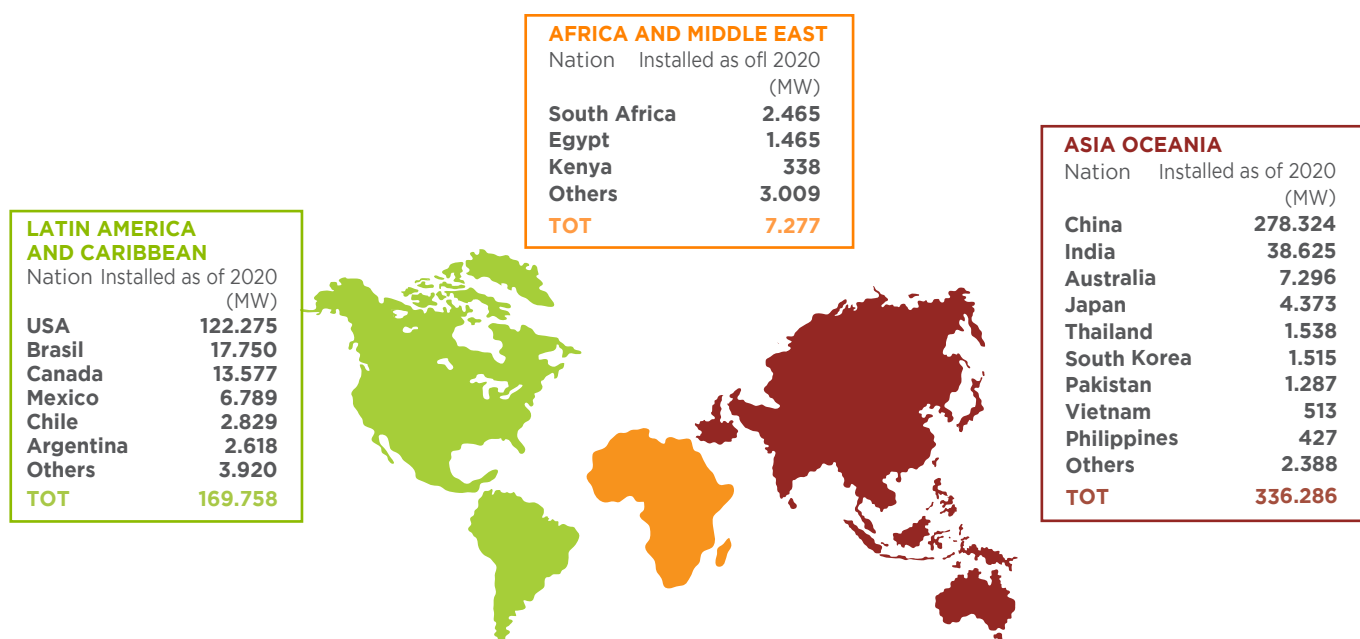


12 ITALY'S EMISSION REDUCTION TARGETS

7.137 wind turbines of various sizes are installed on the national territory for a total installed capacity of 10.619 MW; the share of energy produced in 2020 was about 18,06 TWh, equal to the needs of about 20 million people.

	WIND TURBINES		POTENTIAL BY 2030		GROWTH 2020	KW	
	MW	N°	MW	N° employed	compared to 2019	per inhabitant	per Km ²
APULIA	2.572	1.608	2.900	11.614	2,14%	0,635	131,625
SICILY	1.885	1.537	2.200	6.800	1,04%	0,353	72,952
CAMPANIA	1.710	1.136	2.200	8.638	0,21%	0,229	125,052
BASILICATA	1.207	671	1.500	4.355	-2,08%	1,730	119,815
CALABRIA	1.118	619	1.900	4.586	1,45%	0,505	73,459
SARDINIA	1.079	717	2.100	6.765	0,00%	0,480	44,779
MOLISE	378	313	750	3.166	0,00%	1,171	84,714
ABRUZZO	298	294	850	3.741	4,45%	0,177	27,535
TUSCANY	144	88	500	2.289	0,00%	0,033	6,245
LAZIO	69	45	750	5.548	0,00%	0,010	4,004
LIGURIA	67	50	300	1.061	14,20%	0,032	12,481
EMILIA-ROMAGNA	38	29	250	771	0,00%	0,004	1,710
PIEDMONT	19	9	250	1.145	0,0%	0,004	0,729
OTHERS	35	21	1.000	5.521	0,0%	0,001	0,580
OFFSHORE	0	0	950	1.200	0,0%	-	-
TOTAL	10.619	7.137	19.300	67.200	0,87%	0,210	30,670

REST OF THE WORLD



13 ITALY'S EMISSION REDUCTION TARGETS

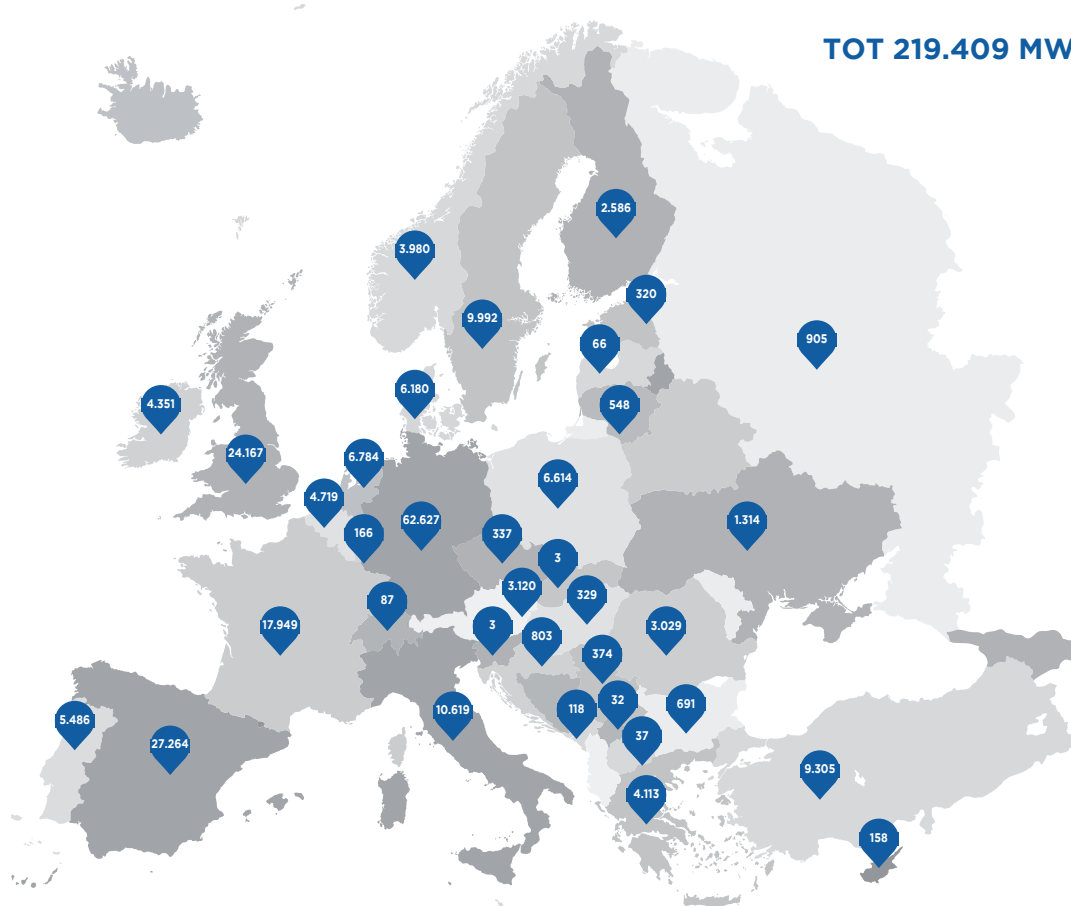


EUROPE

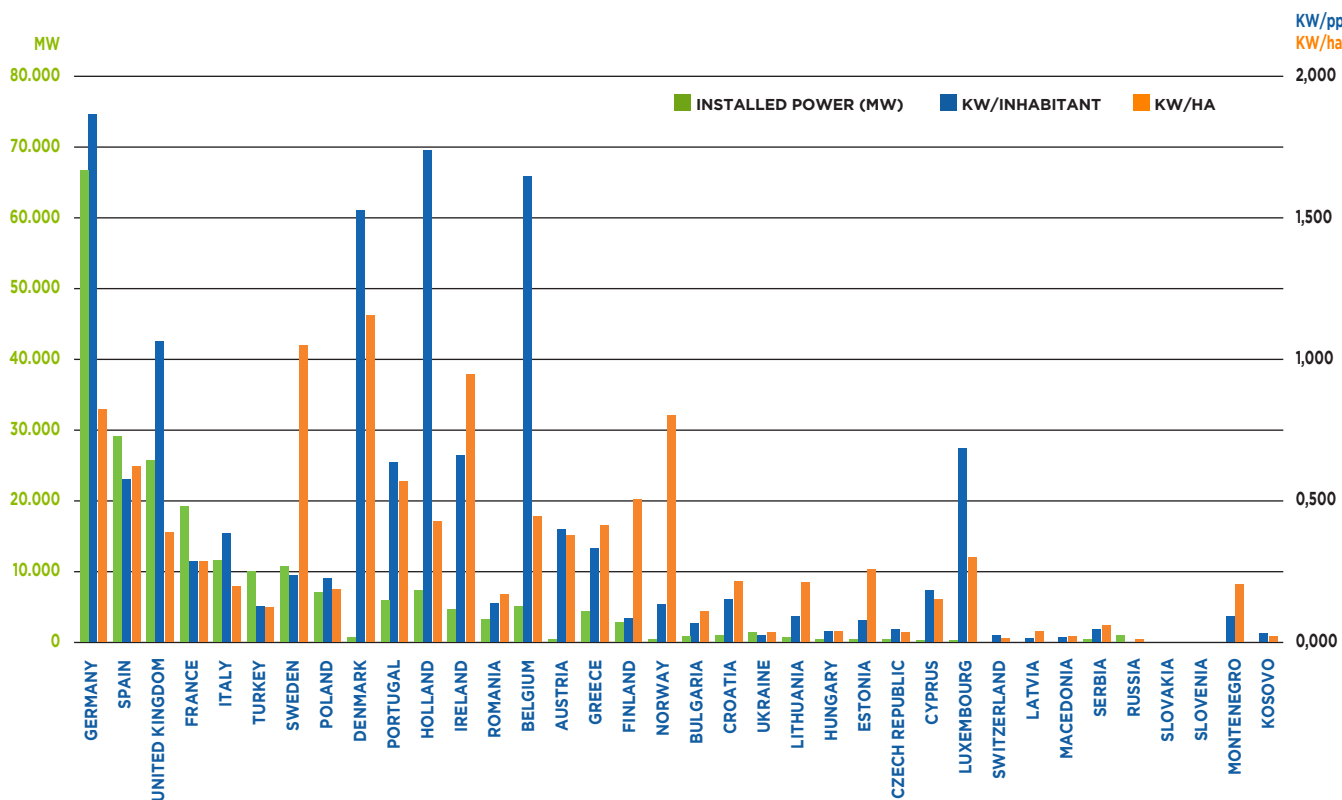
Nation Installed as of 2020 (MW)

Germany	62,627
Spain	27,264
United Kingdom	24,167
France	17,949
Italy	10,619
Turkey	9,305
Sweden	9,992
Poland	6,614
Denmark	6,180
Portugal	5,486
Netherlands	6,784
Belgium	4,719
Ireland	4,351
Greece	4,113
Norway	3,980
Austria	3,120
Romania	3,029
Finland	2,586
Ukraine	1,314
Russia	905
Croatia	803
Bulgaria	691
Lithuania	548
Serbia	374
Czech Republic	337
Hungary	329
Estonia	320
Luxemburg	166
Cyprus	158
Montenegro	118
Switzerland	87
Latvia	66
Macedonia	37
Kosovo	32
Slovakia	3
Slovenia	3

TOT 219.409 MW



INSTALLED POWER: ABSOLUTE VALUE AND IN FUNCTION OF TERRITORY AND POPULATION



14 ITALY'S EMISSION REDUCTION TARGETS

Not only are there benefits from the production of electricity without any emissions that are harmful to health or the environment, but there are also benefits in local, national and international economic terms, such as: development of the local workforce, job creation both on the producer/investor side

and indirectly through suppliers, development of a national industry and improvement of the trade balance. In addition, the wind energy sector alone would generate huge investments with beneficial effects on employment, economic recovery and technological innovation.

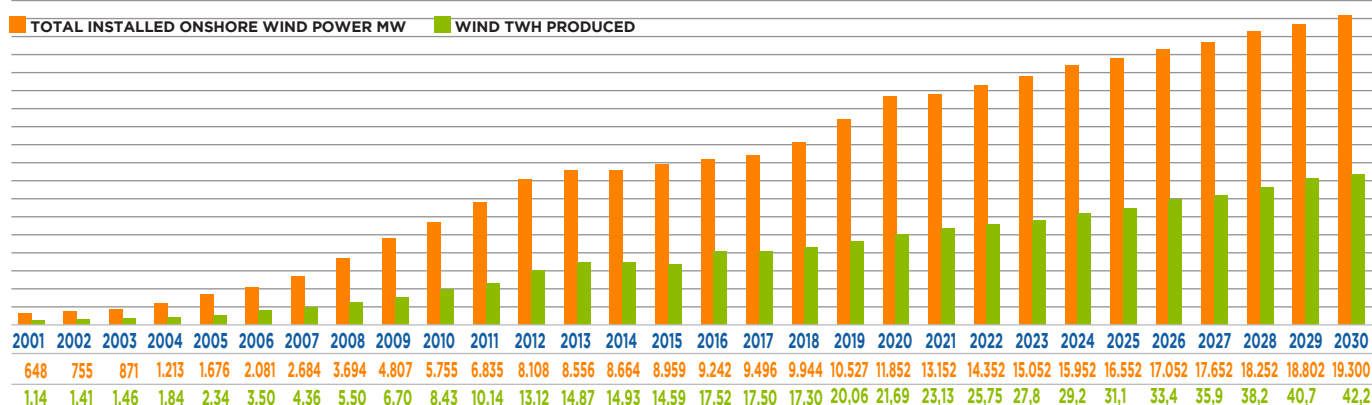
NATIONAL AND INTERNATIONAL TARGET DATES	HISTORICAL AND FORECAST DATA ON WIND POWER DEVELOPMENT IN RELATION TO ITALY'S OBLIGATIONS						ENVIRONMENTAL ASPECTS	
	YEAR	MW INSTALLED TOTAL	MW INSTALLED YEAR	OF WHICH REFURBISHMENTS	PERCENT. RES ON CIL	CIL IN TW*	AVOIDED CO ₂ EMISSIONS	NO. OF OIL BARRELS SAVED
TERNA historical data based on ANEV processing	2001	648	141		17%	327	659.490	1.397.547
	2002	755	107		15%	336	815.685	1.728.545
	2003	871	116		14%	345	844.610	1.789.841
	2004	1.213	342		16%	349	1.064.440	2.255.690
	2005	1.676	463		14%	353	1.353.690	2.868.649
	2006	2.081	405		15%	357	2.024.750	4.290.714
	2007	2.684	603	30	15%	361	2.523.186	5.346.965
	2008	3.694	1.010	44	16%	359	3.181.750	6.742.550
	2009	4.807	1.113	45	17%	339	3.875.950	8.213.652
Dir.Com. 2001/77/CE	2010	5.755	948	40	19%	357	4.876.755	10.334.491
Kyoto Protocol	2011	6.835	1.080	40	24%	344	5.865.990	12.430.811
	2012	8.108	1.273	40	28%	325	7.589.920	16.084.047
Community Objective 20/20/20	2013	8.556	449	45	34%	318	8.602.295	18.229.404
	2014	8.664	108	0	38%	309	8.637.005	18.302.959
	2015	8.959	295	0	35%	315	8.439.737	17.884.921
	2016	9.242	283	0	33%	321	10.135.320	21.478.087
	2017	9.496	254	0	32%	320	10.123.750	21.453.569
	2018	9.944	452	9	35%	322	10.008.050	21.208.385
	2019	10.517	896	450	36%	320	11.604.710	24.591.920
	2020	10.619	352	250	38%	303	10.729.440	22.737.105
PNIEC objectives	2021	11.919	1.500	200	36%	331	13.382.788	28.359.902
	2022	13.119	1.400	200	38%	335	14.896.375	31.567.394
	2023	13.819	1.500	800	40%	338	16.082.300	34.080.527
	2024	14.619	1.650	850	42%	341	16.892.200	35.796.812
	2025	15.219	1.450	850	45%	344	17.991.350	38.126.057
	2026	16.119	1.800	900	48%	348	19.321.900	40.945.669
	2027	16.969	1.800	950	50%	352	20.768.150	44.010.464
	2028	18.269	1.800	500	52%	356	22.098.700	46.830.076
	2029	18.819	700	150	53%	361	23.544.950	49.894.872
	2030	19.300	681	200	55%	364	24.412.700	51.733.749

* CIL projections evaluated on the basis of trend scenarios prepared by TERNA.

Key: CIL = Gross Domestic Consumption - RES = Renewable Energy Sources - TW = Terawatt-hour (unit of measurement of electrical energy equal to 1,000,000,000 kWh)

GWh = Gigawatt hour (unit of measurement of electrical energy equal to 1,000,000,000 kWh) - MW = Unit of electrical power, equivalent to 1,000,000 Watts - CO₂ = Carbon dioxide

PROSPECTS FOR GROWTH IN WIND ENERGY ON THE BASIS OF ITALY'S COMMITMENTS AT COMMUNITY LEVEL





On the international climate and energy front, the Renewable Energy Directive and COP 25 in Madrid, Spain, are of note.

The RES Directive

In December 2018, the final and definitive approval of the 2030 renewable and efficiency targets came from the EU Council. The Council's approval is the last step in the long legislative process for the adoption of the new Renewables Directive, Energy Efficiency Directive and the new Energy Governance Regulation, presented by the EU Commission as part of the Clean Energy Package in 2016.

Specific to the renewable energy sector, the objective of Directive 2018/2001/EU (RED II), which repeals Directive 2009/28/EC, was to accelerate the transition from fossil fuels to renewables. To this end, the directive set a binding target of 32% for renewables by 2030. However, this target may be revised upwards by 2023. The new provisions must be transposed by the Member States by 30 June 2021, in our country, through the 2019-2020 European Delegation Act.

COP 26 in Glasgow

COP 26 in Glasgow, initially scheduled for 2020, has been postponed. It was initially scheduled for April 2020 and then rescheduled, subject to further changes, for November 2021. From COP 25, countries' presentations of their new plans for cutting emissions had been postponed until COP 26.

The Energy Union Governance Regulation

Renewables have therefore assumed a key role within the Energy Union Governance Regulation approved in 2018 in each of the areas/dimensions identified within it, through which the pathways to achieving the EU's 2030 energy and climate targets are to be expressed.

The regulation provides for the establishment of a governance mechanism for the implementation of strategies and measures to achieve the Energy Union's objectives and for the proper preparation and communication of the corresponding national plans. These plans will therefore contain the details for achieving the EU targets.

The review and related achievement of the EU's challenging 2030 renewable targets require a pragmatic strategy based on clarity, transparency and simplicity, and this strategy is a key element in the construction of future ten-year plans.

The Rules of Procedure of the EU Parliament have identified five areas/dimensions, such as:

- Energy security;
- Decarbonisation;
- Energy efficiency;
- Energy market;
- Research/innovation and competitiveness.

The Integrated National Energy and Climate Plan...

In its proposal for the Integrated National Energy and Climate Plan (NIEC), presented to the EU at the end of 2018 and approved at the end of 2019, the contents of which are in line and in continuity with the 2017 National Energy Strategy (SEN 2017), the Italian Government has identified for each of the above-mentioned dimensions the relevant intervention policies and related measures, to be implemented, recognising the pivotal and fundamental role of Renewable Energy Sources (RES), and in particular wind power, as a source capable of supporting each of the individual dimensions identified by the European Union in an efficient, sustainable and transversal manner.

The PNIEC has clearly identified the priorities for action that place the development of Renewable Sources in first place, recognising the value that these sources have for the Italian production system, increasingly based on the principles of social, environmental and economic sustainability.

The PNIEC indicates a coverage of 30% of the country's gross energy consumption by 2030, a value that translates into a percentage of coverage of renewable electrical sources of 55.4% of gross final energy consumption.

The PNIEC identifies and outlines an important growth trajectory for the wind sector, which is already an irreplaceable energy resource with an installed capacity of over 10 GW and renewable electricity production of over 18 TWh, corresponding to avoided CO₂ emissions of over 10 million tonnes, oil savings of over 20 million barrels and direct and indirect employment of

over 16,000 people, identifies and outlines an important growth trajectory for the sector by 2030 that will more than double the quantities described above, reaching an installed capacity of more than 19.3 GW and production of more than 41 TWh, corresponding to avoided CO₂ emissions of more than 27 million tonnes, oil barrels saved of 56 million and employment prospects of up to 67,000 people distributed throughout the country and located mainly in so-called "depressed" areas.

The PNIEC is referred to in the National Recovery and Resilience Plan (PNRR), which is in an evolutionary phase following the change of Government. The PNRR, approved at the time of publication, is divided into 6 Missions, which in turn group 16 functional Components to achieve the economic and social objectives defined in the Government's strategy. The Components are divided into 47 intervention lines for homogeneous and coherent projects. The NRP sees the "RES" sector as a substantial element for recovery and describes it in Mission 2, "Green revolution and ecological transition", divided into four components. The first component, 'Sustainable Agriculture and Circular Economy', aims to achieve a sustainable agrifood chain and the modernisation and construction of new plants for the valorisation of waste. The second component, 'Renewable energy, hydrogen and sustainable mobility', aims to increase the share of energy produced from renewable sources and to develop an industrial sector in this area, including that of hydrogen. A significant contribution will come from offshore wind farms and photovoltaic plants. The third component, 'Energy efficiency and upgrading of buildings', aims to improve the energy efficiency of public and private buildings. The fourth component, 'Protection of land and water resources', envisages significant interventions on hydrogeological instability.

The RES1 Ministerial Decree

At national level and in implementation of the path outlined by the PNIEC, with the aim of maximising the production of energy from renewable sources, in 2019 the DM FER1 was published, as a new discipline for the promotion of RES and in particular of the wind source.

The FER1 Ministerial Decree of 4 July 2019, in its general lines, responds to the overall need to support the production of electricity from renewable energy plants and in particular from wind power, laying the foundations for the achievement of the objectives set by the PNIEC to 2030 although limiting its time horizon to 2021.

The FER1 Ministerial Decree is also a step towards the complete harmonisation of national legislation with European guidelines, providing for the participation in competitive procedures for all plants, including those with a capacity of less than 1 MW, even those belonging to different technologies, by virtue, however, of presumed similar cost structures in implementation of the principle of technological neutrality.

The RES Ministerial Decree set out seven deadlines for the conduct of competitive procedures in order to allow operators to plan their investments until the end of 2030.

their investments until the end of 2021. At the same time, the FER1 Ministerial Decree laid the foundations for building appropriate "green PPA" models by setting up a special negotiating platform. The procedures carried out to date involving authorised wind farm (and photovoltaic) projects have resulted in the failure to use the power quotas made available by the RES Ministerial Decree 1, as a result of the structural lack of final projects due to obstacles encountered in the authorisation procedures upstream of the final measure. It is also hoped that, given the still available capacity of the power quotas, the auction and registry procedures will be extended beyond the last one scheduled for September 2021.

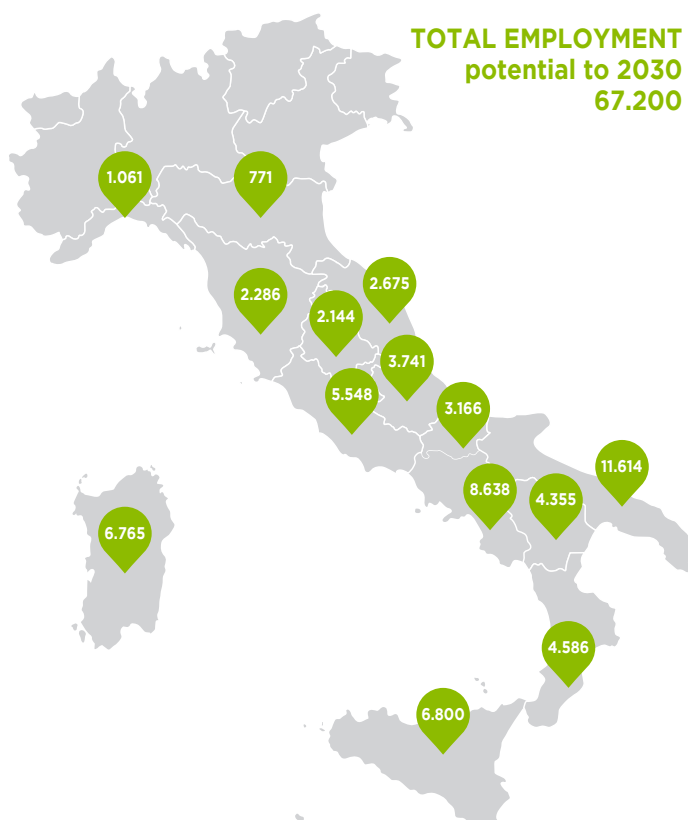
The Simplification Decree

In July 2020, the so-called Simplifications Decree (Decree Law No. 76 of 16 July 2020) was published, converted with amendments by Law No. 120 of 11 September 2020, which introduced some simplifications (e.g. the introduction of the DILA) in the authorisation procedures for the construction of new plants or for the approval of non-substantial changes for the modernisation of existing plants and also for projects authorised or in the process of being authorised. It intervened on the limitations to the GSE's sanctioning powers, and on participation in incentives (registers and auctions) for plants that did not participate in the Spread-incentives.

16 THE EMPLOYMENT POTENTIAL OF THE WIND ENERGY SECTOR IN ITALY PROTOCOL ANEV - UIL

In January 2008, ANEV and UIL signed a Memorandum of Understanding, renewed in 2010, 2012 and 2014, aimed at preparing a joint study outlining a scenario on the employment situation in the wind energy sector. The study is an in-depth analysis of the real employment potential, examining in depth the aspects of the expected growth of the industrial sector, development companies and service companies. In particular, the direct and induced employment effects in the following sectors were considered. The analysis of the final data relative to the wind potential, transposed into employment terms by ANEV with respect to the criteria used generically in the literature, indicates an employment potential of 67,200 jobs by 2030 in the case of the realisation of the 19,300 MW foreseen.

This figure can be divided into one-third direct employment and two-thirds induced employment. The application of the ANEV and UIL methodology currently estimates about 16,000 workers in the wind energy sector in Italy; the same value was obtained using another methodology developed by Deloitte on behalf of Wind Europe, confirming the accuracy of the estimate.



	SERVICES AND DEVELOPMENT	INDUSTRY	OPERATION AND MAINTENANCE	TOTAL	DIRECT	INDIRECT
APULIA	35	4.271	3.843	11.614	2.463	9.151
CAMPANIA	3.192	1.873	3.573	8.638	2.246	6.392
SICILY	2.987	1.764	2.049	6.800	2.228	4.572
SARDINIA	3.241	1.234	229	6.765	2.111	4.654
MARCHE	987	425	1.263	2.675	965	171
CALABRIA	2.125	740	1.721	4.586	1.495	3.091
UMBRIA	987	321	806	2.114	874	124
ABRUZZO	1.758	732	1.251	3.741	1.056	2.685
LAZIO	2.487	1.097	1.964	5.548	3.145	2.403
BASILICATA	1.784	874	1.697	4.355	2.658	1.697
MOLISE	1.274	496	1.396	3.166	1.248	1.918
TUSCANY	1.142	349	798	2.289	704	1.585
LIGURIA	500	174	387	1.061	352	709
EMILIA-ROMAGNA	367	128	276	771	258	513
OTHER	300	1.253	324	1.877	211	1.666
OFFSHORE	529	203	468	1.200	548	652
TOTAL	27.417	16.205	23.388	67.200	22.562	44.638

17 PROTECTION OF BIODIVERSITY

Wind power, being a valid response to the serious environmental threats due to greenhouse gas emissions into the atmosphere caused by energy supply from fossil fuels, promotes the protection of biodiversity and the preservation of natural habitats and flora-fauna populations on a macro scale. However, it is necessary to plan the installation of wind turbines in such a way as to avoid possible impacts on the surrounding environment and biodiversity at regional and local scales.

Considering the effects on flora and fauna related to the development of wind farms, ISPRA (ex APAT, 2006) writes: "The only effects found concern the possible impact of birds with the rotor of the machines. However, the number of birds that die is lower than that due to car traffic, electricity or telephone poles".

The UK's Society for the Protection of Birds (RSPB) has also stated that "Climate change poses the greatest long-term threat to birds and other species. Wind power is the most advanced renewable technology available on a large scale today. The RSPB supports significant growth in onshore and offshore wind power generation in the United Kingdom."

Considering the benefits of wind power to birdlife by counteracting climate change through avoided greenhouse gas emissions, WWF published a Report (A Climate Risk Report. Bird Species and Climate Change. The Global Status Report) which, on the basis of more than 200 scientific papers, notes the huge impacts of climate change on birdlife across the globe, highlighting how scientists have found populations in decline by up to 90% or with total and unprecedented reproductive failure. The IUCN (International Union for the Conservation of Nature) in 2008 reinforced the alarm, stating that climate change is driving one in eight bird species to extinction.



FLORA

Effects:

Impacts to vegetation occur primarily during Project construction, with road and foundation construction, and material movement.

Mitigation:

- Minimize impacts through preventive studies and the application of site mitigations;
- Minimize erosion risks caused by civil works;
- Restore vegetation at the end of the construction phase;
- Compensate for the impact by improving nearby areas to have a positive overall balance

FAUNA

Effects:

During the construction phase, momentary removal of animals may occur due to noise during the construction and decommissioning phases; during operation, potential impacts primarily affect populations of avian and chiropteran fauna.

In this regard, there may be cases, albeit insignificant, of collision of birds and bats with the blades of wind turbines, as well as electrocution and collision of birds with power lines. In fact, **numerous studies on an international scale have shown that the contribution of wind turbines on the annual deaths of birds is relatively low**; it has been observed that birds immediately learn to avoid impacts with turbines and continue to nest and feed in the territories where the plants are installed.

In this regard, the European Community in 2011 published European Guidelines on wind energy and Natura 2000 sites, which include SPAs, special protection areas located along the migration routes of birds. In the document it is made explicit that it cannot be said that wind power creates an impact on birdlife but it is necessary to consider case by case, even in areas of high environmental value such as SPAs, stressing that in some cases, by providing nesting facilities, the plants have had beneficial effects on local bird species.

According to the U.S. Fish and Wildlife Service, the leading cause of bird mortality is cats (about one billion birds per year), followed by buildings (just under one billion), hunters (about 100 million per year), and finally vehicles, telecommunication towers, pesticides and high-voltage power lines (each contributing 60-80 million birds per year); the contribution from wind farms is an extremely small fraction.

Finally, a study by the Canadian Wind Energy Association (CanWEA) found that out of 10,000 incidents involving birds, 5,820 were attributable to buildings, 1,370 to high-voltage power lines, 1,060 to cats, 850 to vehicles, 710 to pesticides, 50 to telecommunications facility towers, and less than one to wind farms.



18 PROTECTION OF BIODIVERSITY

Mitigation:

- Care in lay-out (avoid areas of intense migration routes, leave corridors clear);
- Adoption of BAT (Best Available Technologies): slow rotor, tubular towers, burial of power lines;
- Accident monitoring for prevention.

NATIONAL OBSERVATORY WIND AND WILDLIFE



ANEV and Legambiente Onlus, together with the collaboration of ISPRA, Institute for Environmental Protection and

Research, have established a National Observatory on Wind and Fauna, aimed at expanding scientific knowledge on the relationship between the production of electricity from wind power and wildlife populations, with particular reference to the ornitho- and chiroptero-fauna, which are undisputedly the component of biodiversity in which the impact of wind power is most debated.

The main objective of the Observatory is to strengthen environmental protection and, at the same time, to promote the development of wind farms on the Italian territory in a way that is attentive to the conservation of biodiversity, monitoring any environmental impacts due to potential interactions between wind farms and populations of bats and resident and migratory birds, and promoting the dissemination of best practices for the minimization of these potential impacts.

The Observatory is therefore concerned with expanding scientific knowledge on the subject in order to make available studies, research and monitoring methods that contribute to providing information on the subject that is ever more in-depth and based on scientific foundations. To this end, the Monitoring Protocol of the National Observatory for Wind and Wildlife has been published (available online at the page of the Observatory in the ANEV website) containing technical and scientific indications for planning and carrying out monitoring, ante and post operam, of bird and bat populations on wind sites.

The Monitoring Protocol therefore aims to indicate a scientific methodology to be used on the Italian territory both to estimate, qualitatively and quantitatively, the possible impacts of wind power on birds and bats, and to guide the implementation of measures to mitigate and/or compensate for these types of impact.

The use of the Monitoring Protocol is propaedeutic to the realization by the Observatory of a potential database of information on the aeolian-fauna theme that allows the comparison, in time and space, of quantitative data obtained using the same methods of detection.

Ultimately, the Protocol represents a useful and concrete tool to standardize on the latest scientific foundations the differences currently present in regional regulations on the subject.

GSE OPERATION MANAGEMENT PROCEDURES

On the subject of the management of existing plants, whose interventions are part of a much broader framework of their modernization, on December 20, 2017 the GSE published, in implementation of art. 30 of Ministerial Decree 23.6.2016, the Operating Procedures “Operation Management” of plants producing electricity from renewable sources other than photovoltaic admitted to incentives, introducing a new perspective of growth and development for the wind sector.

The Operating Procedures have in fact officially introduced and regulated new categories of intervention, in particular of non-incentivised modernisation and upgrading, in addition to the traditional categories of replacement and modification of plant configuration, which are more closely linked to the operation of wind farms, allowing operators the possibility of increasing production through technological innovation and efficiency improvements, for which a cap on the maximum energy eligible for incentives is, however, introduced.

The procedures represent a new opportunity for all sources but it is, however, wind power that provides the greatest potential thanks to the possibility of reblading, revamping and repowering interventions that could in-

volve over 3.5 GW of initiatives with an increase in additional post-intervention production of almost 5 TWh.

The process of modernization of existing plants allows to activate on Italian wind farms additional investments for more than 2 billion euros in the short term, with an impact on employment up to 22,000 additional units, concentrated mainly in the implementation phase of the interventions, in addition to other benefits such as increased tax revenue, the reduction of electricity prices and the increase in compensatory measures towards the territory.





CHOICES AND PROJECT DEFINITION:

- Environmental constraints of urban insertion
- Distance of the turbines from the perimeter of the urban area
- Distance of the turbines from the tank property boundary
- Distance from provincial or national roads
- Daily shadow evolution

LOCATION OF THE SITE:

- Wind availability
- Measurement systems
- Long-term correlations

THE PROJECT AND THE LANDSCAPE

What is landscape: "Landscape designates a determined part of the territory, as it is perceived by the populations, whose character derives from the action of natural and/or human factors and their in-

terrelationships" (from "European Landscape Convention", Florence 20 October 2000 - prepared by the Congress of Local and Regional Authorities of the Council of Europe)

NATURAL LANDSCAPE AND ANTHROPOGENIC LANDSCAPE, PROTECTION ACTIONS:

- Passive protection (constraints)
- Mediated (urban planning tools)
- Active (silviculture, dissemination)

LANDSCAPE REGULATIONS

- D. Legislative Decree 490/1999
- Consolidated text of the provisions on cultural and environmental cultural and environmental heritage
- Law 1497/1939 now art. 139 of Legislative Decree 490/1999
- Law 431/1985 now art. 146 of Legislative Decree 490/1999



20 HOW TO BUILD A WIND FARM



9

TURBINE ARRIVAL: BLADE



8

TURBINE ARRIVAL: NACELLE

10



INSTALLATION: NACELLE, ROTOR,
WIND TURBINE IMPELLER

11



NACELLE - TRANSFORMATION CABIN



SUBSTATION



13



CABLE DUCTS

12

14



CONTROL ROOM

15



MAINTENANCE AND SERVICE



16



COMPLETED WIND FARM



Internationally it is intended to be classified as small wind power, for practical reasons and homogeneity, wind turbines up to 100 kW of power, even if formally according to the IEC 61400-2 (Design requirements for small wind turbines) this category includes machines with a swept area equal to or less than 200 m², corresponding to a rotor diameter of slightly less than 16 m and a power generally less than 50-60 kW, depending on the nominal speed at which the wind turbine delivers its rated power.

Globally, at the end of 2015, based on institutional assessments and published industry data, small wind turbines up to 100 kW in size were installed with an approximate total value of 1.3 GW. China boasts the highest number and highest cumulative capacity, which was approximately 800 MW as of December 2014, followed by the United States where 144 MW were installed at the end of 2015, and then the United Kingdom with 127.4 MW.

In Italy, the mini-wind power, intended up to 60 kW of power, has developed a lot in recent years with a cumulative power at the end of the first half of 2020, according to the semi-annual bulletin of the GSE, with an installed capacity of plants that have requested direct access to incentives equal to 195 MW an energy fed into the grid equal to 280 GWh. The greatest contribution to the achievement of this power is attributable to the 60 kW machines, not so much for a technological or commercial reason, but for the fact that the size of 60 kW represents the upper limit of power at which the plants can take advantage of the bureaucratic simplification, i.e. obtaining the authorisation to build the plant with the presentation of the Simplified Enabling Procedure (PAS).

In Italy, with the issuance of the new DM FER1 of July 4, 2019, the incentive tariffs assigned to small wind power have been differently articulated and, above all, significantly reduced compared to the previous incentive decrees of 2012 and of 2016, providing for the following values:

from 1 kW to 100 kW = 150 €/MWh;

from 100 kW to 1000 kW = 90 €/MWh;

In addition, the new Ministerial Decree FER1 no longer provides for direct access to the incentive for all renewable sources, and therefore also for small wind turbines, which therefore remains subject to the procedure of registration in a useful position in the registers envisaged by the Ministerial Decree.

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fore also for small wind turbines, which therefore remains subject to the procedure of registration in a useful position in the registers envisaged by the Ministerial Decree.

Similar reductions have occurred in China, the US and the UK. Obviously, the role of the incentive system is absolutely primary in the orientation of the market, determining, depending on the extent of the measures, either a substantial development or a marked reduction in the growth rate. Another factor, decisive for the sector's commercial evolution, with the conquest of a no longer marginal role in the energy sector, especially in strategic and social terms, and with an effective contribution to the generation and consumption of energy in a distributed environment, is represented by the technological innovation from which the small wind turbine has benefited

in this last period. Indeed, current machines make use for the most part of components and devices that have decreed the success of the major wind, with important results in terms of reliability and performance. In this regard, it is worth remembering that in the Wind Implementing Agreement of the IEA (International Energy Agency) there is the Task 27 "Consumer Labelling of Small Wind Turbines", with the the purpose of developing international standards as far as quality and performance of small wind turbines is concerned.

A projection for the future, according to WWEA (World Wind Energy Association), shared by other institutes and associations, contemplates an annual growth of the sector of about 300 MW, a value that, if confirmed, would highlight an encouraging market evolution for all operators.

ANEV, through the evaluation of anemometric data available on the national territory, estimates **an energy potential of small wind power equal to about 1.5 TWh / year, corresponding to an installed capacity of about 850 MW**, which can be reached necessarily only through a real simplification of the authorization processes and pursuing cost-effectiveness in the phase prior to installation (anemometry) and a technological development characterized by strong versatility that would allow it to spread even in the most diverse contexts.



22 OFFSHORE WIND POWER

Offshore wind is a sector with high potential in Italy, although it still has a zero MW installed capacity, unlike the rest of Europe, where in recent years, especially in some EU countries, extremely significant growth and development rates have been recorded, also through the use of recent new supporting technologies. The PNIEC, recently approved by the Italian Government, has set a growth target for offshore wind of 900 MW by 2030. The potential of offshore wind energy in the Italian seas estimated by ANEV, based on an analysis of current/foreseeable technologies, is 5.5 GW by 2030. This is thanks both to Italian companies that already have mature experience in the sector and are developing innovative, cutting-edge national technologies, and also thanks to the technological advances linked to the use of floating platforms, which allow turbines to be installed at bathymetries much higher than those permitted by bottom fixed foundations, thus enabling installations in areas many kilometres from the coast, where the wind resource is available and the plants are very little visible from the coast.



In this study evaluating the potential of this technology to 2030, in addition to the anemological potential of the different sites (with a minimum speed of 6.5 m/s at a height of 70 metres), the presence of certain constraints was analysed, such as:

- ▶ **presence of protected natural areas: in particular marine protected areas established by the Italian Environment Ministry and the areas of the Natura 2000 Network (sites of community importance, special protection areas, etc.);**
- ▶ **environmental, landscape and archaeological constraints;**
- ▶ **presence of important shipping lanes;**
- ▶ **other constraints (military easements, aviation, etc.);**
- ▶ **distance from the coast (imposing a value of at least 4 km from the shore), the type of seabed (muddy and/or sandy) and depth;**
- ▶ **the surface of the identified area;**
- ▶ **the possibility of connection to the national electrical grid (through power lines located in coastal areas).**

Currently, there are an estimated 10 offshore wind projects in Italy with a capacity of at least 7,000 MW under consideration. The areas concerned are Sardinia, Sicily, the Adriatic and the Upper Tyrrhenian. However, it is necessary to promote and support offshore wind technology, which currently still has relatively high construction costs compared to more mature technologies. A green energy strategy, therefore, cannot disregard the establishment of a regulatory system for authorisation procedures, infrastructures and support mechanisms dedicated to offshore wind, in order to accompany it towards full maturity and to effectively support the development of new industrial sectors, which are also potential leaders at international level. The objective must therefore be to create the conditions for offshore wind energy to make an effective and efficient contribution to the achievement of national objectives related to the energy transition, and moreover within the time frame envisaged by the planning instruments that Italy has adopted.





EXTRAORDINARY COMMUNICATION PLAN 'FREE THE ENERGY, FOLLOW THE WIND'.

ANEV has launched an extraordinary communication campaign for 2021 **"Free the energy, follow the wind"**, because in this crucial phase of ecological transition in our country, wind energy must be able to express all its benefits to the full by overcoming the bureaucratic obstacles that it often encounters on its way.

The final objective is to change the legal and regulatory framework in order **to simplify authorisation procedures** and support the sector's industrial development in the medium term, so that the 2030 objectives of the PNIEC can be met and exceeded.

The actions identified foresee two types of activities:

1. **Support for institutional activities**, mainly directed at the Presidency of the Council of Ministers, the Ministry of Cultural Heritage and the Ministry of Ecological Transition;
2. **Communication activities** aimed at giving visibility to the institutional action and to orientate general opinion, in support of the effectiveness of the intervention.

The communication campaign was also developed on ANEV's social channels Facebook, LinkedIn, Twitter and Instagram.

Find out more at
<https://www.anev.org/seguilvento/>



WORLD WIND DAY



15 June 2021

World Wind Day is an international campaign to raise awareness about wind energy, which includes conferences, cultural, recreational and educational activities and involves the main operators in the wind energy sector. In Italy, the event is coordinated by ANEV and has for years received the patronage of the Ministry for Economic Development and the Ministry for the Environment, as well as the support of the President of the Republic and Rome Capital. Conferences, concerts and cultural events on the subject of wind are organised every year.

ANEV JOURNALISM AWARD

To award prizes to journalistic works that have particularly distinguished themselves for their scientific, cultural and social value in communicating wind energy, highlighting the environmental value of electricity production from renewable sources, with a view to saving energy and reducing the pollutants responsible for environmental degradation. This is the aim of the "Wind Energy" Journalism Award, promoted by ANEV. There are four sections in the competition: press, radio, TV and web. In addition, there is a special section with the Under 30 Prize, which aims to promote the activities of young journalists, on whom rests the hope and responsibility of bringing to the world of information a greater sensitivity towards environmental issues, clean energy and wind power. The announcement of the competition is published on WWW.ANEV.ORG

TRAINING COURSES AND SEMINARS

ANEV Course 1/2021

WIND FARM SAFETY

24 - 25 March 2021

ANEV Seminar

**THE DEVELOPMENT OF PPA TO FINANCE
NEW FER INITIATIVES**

13 May 2021

ANEV Course 2/2021

RENEWABLES: ADVANCED COURSE ON WIND POWER
25-28 May 2021

ANEV- ELETTRICITÀ FUTURA Seminar

HOW TO DEAL WITH THE PROCEDURE VIA
16 September 2021

ANEV Course 3/2021

OPERATION & MAINTENANCE
27 October 2021

ANEV Course 4/2021

WIND OFFSHORE
28 October 2021

ANEV Seminar

**THE DEVELOPMENT OF PPA TO FINANCE
NEW FER INITIATIVES**

2 December 2021

