







Renewable energies

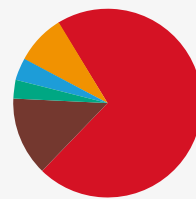
	DIRECT JOBS	6,500
	COMPANIES	110
	REGIONAL GDP	5 %
	THE MAIN WORLD COMPANIES ARE IN NAVARRA	World benchmark

Navarra is a pioneer and a benchmark at European level in the production of renewable energies, with a strong technological and industrial commitment to its development

23.79% of energy consumption in Navarra comes from renewable energy

Navarra has already passed the European objective for 2020 in terms of energy. It beats the 20 % target set by the European Union for the start of the next decade.

Renewable energy sources

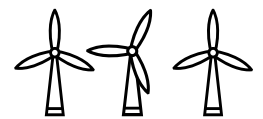


Installed power.
Source: 2020 energy balance.

- 11,7 % MINI-HYDRO
- 2,8 % LARGE HYDRO
- 2,5 % BIOMASS
- 10 % PV SOLAR
- 73 % WIND

Navarra is the birthplace of innovation in wind power:

In the period covering 2008-2013 it has become the third economic area in terms of number of patents.



Renewables currently cover the 72,94 % of energy demand in Navarra.

Electricity consumption for 911,000 homes.

 CENER National Centre of Renewable Energies	200	RESEARCHERS WORKING
	LEA	WIND TURBINE RESEARCH LABORATORY
 CENIFER National Reference Centre in Energies Renewables and Energy Efficiency	5.000	PEOPLE TRAINED
	22	INSTRUCTORS
	17	CLASSROOMS & LABS
 SIEMENS Gamesa Siemens Gamesa Renewable Energy	1800	EMPLOYEES
 acciona Acciona Energia	550	EMPLOYEES
 NORDEX acciona Nordex Acciona Windpower	950	EMPLOYEES

Navarra is a pioneer and a benchmark at European level in the production of renewable energies

Navarra is a **pioneer** and a **benchmark** at European level in the production of renewables, thanks to a historic technological and industrial commitment to their development and the application of new global standards for wind power.

The sector has an important industrial network of more than 110 companies, 6,500 jobs and a turnover of €4.5 billion, representing 5% of regional GDP. In turn, it is the region's second largest export sector, mainly based on the production of wind turbines and their components.

The close-knit industrial fabric covers all links in the value chain, which includes one large renewable energy operator, Acciona Energía, and two large OEMs, Siemens Gamesa and Nordex-Acciona Windpower. An important group of SMEs also provide great added value for certain electronic

components, such as blades, controls, bearings and gearboxes.

Navarra has surpassed the European target of 20% set for 2020 in renewable energy sources since 2009. **Currently, 23.79% of energy consumption in Navarra comes from renewable energy.**

Since December 2020, the installed capacity of renewables in the region is around 1,784 MW, of which 1,302 MW come from wind farms.

Renewable energies cover **72.94%** of electricity demand in Navarra, equivalent to the consumption of 911,000 homes (there are 240,000 in Navarra). Around **30% of the energy produced is exported.**

The sector has established itself as the third economic area by volume of patents

The sector has established itself as the third economic area by volume of patents. Navarra is very well equipped with infrastructures and skills for the carrying out of R&D+i for the sector:

CENER: National Centre of Renewable Energies. A technology centre specialised in applied research and the development and promotion of renewable energies. Cener's work is oriented towards the development of technology through R&D+i projects, technical assistance and the provision of services, and the preparation of technical and economic viability reports and studies. It can call on cutting-edge technological infrastructures such as the Wind Turbine Testing Laboratory (LEA), unique in the world. More than **200 researchers** work

in Cener, offering services to companies and institutions from all over the world.

CENIFER: The National Reference Centre for Renewable Energies and Energy Efficiency was the first initiative of its kind in Europe in vocational training in the sector. **Over 5,000 people trained, 22 full-time instructors, 17 classrooms and laboratories.** A wind power cluster has been recently created. It is a pioneer in this market and consists of 11 companies, the aim being to improve the competitiveness of the sector.

Enercluster, the wind power cluster, has been recently created. It is a pioneer in this market and consists of 48 companies, the aim being to improve the competitiveness of the sector.

3rd ECONOMIC AREA

Navarra is also the "birthplace of innovation in wind power"

It is home to several energy sector companies that have taken the leap into international expansion after consolidating their presence in Navarra. The key factors that have made Navarra a pioneer in renewables are:

A. The continuous **energy plans** passed by the Government of Navarra with the aim of energy efficiency and the use of renewable sources.

B. The growing **social acceptance** of wind farms.

C. The presence of **private enterprise**, which has made a firm commitment to renewable energy and carried out considerable investment in the initial launch phase.

Empresas relevantes del sector



ACCIONA Energía, is a world leader in the field of renewable energies. Its mission is to demonstrate the technical and economic viability of new energy model. It employs more than 550 people in Navarra.



Ingeteam is a leading electrical engineering company, developing electrical equipment, drives, generators and frequency converters for wind, photovoltaic solar, thermal solar and hydroelectric power, biomass, biofuels, combined cycles and cogeneration. It employs 400 people in Navarra.



Sakana is a foundry for windmills, machine tooling, engine blocks and others. It is a cooperative, founded in 1975. It manufactures grey iron and ductile iron parts weighing between 3 and 60 tonnes, mostly for the wind power sector. It employs 80 people in Navarra.



Fluitecnik works in the industrial sector and on renewable energies (wind and thermoelectric) Thanks to the increasing role of renewables, the company has undertaken a process strong growth in investments and turnover.



Nordex, which recently took over **Acciona Windpower**, designs, manufacture, markets, installs and operates wind turbines that give the wind power developer maximum performance at the lowest possible energy cost throughout a turbine's working life. It employs 950 people.



M. Torres. Its corporate purpose is the promotion, development and start-up of wind farms, the design, manufacture and installation of automatic process for the manufacture of wind turbine blades: research and development of wind power components. Its plant in Navarra employs more than 470 people.



Nabrawind Technologies Design and development of advanced wind power technologies, as well as engineering consultancy. Its technologies can be easily integrated into existing wind turbines. It supplies certified technologies and components that do not require the redesign and re-certification of wind turbines.



STI Norland was the company pioneer in Europe both in the development of structures set as followers solar. In 1998 he designed his first photovoltaic solar structure, and in 2002 it launched market your first follower solar. In 2021 it was acquired by the North American company Array Technologies.



Gamesa is a global technology leader with 20 years' experience and more than 80,000 MW installed in 90 countries. Its range includes start-up services and wind turbine maintenance. Its offices and plants in Navarra employ more than 1,600 people.



Sapa Perfiles is a world leader in the production of extruded aluminium profiles. Its solutions are applied in almost all industrial sectors. In the field of renewable energies, it provides a wide range of solutions. The company employs 130 people in its plant in Navarra.



Grupo Rios Renovables is a consolidated company in the renewable energy market. It manages and develops activities around wind power, photovoltaic energy and energy efficiency.



Mekatar is a company specializing in the machining of components for the energy sector renewables, being its pillar fundamental the wind.