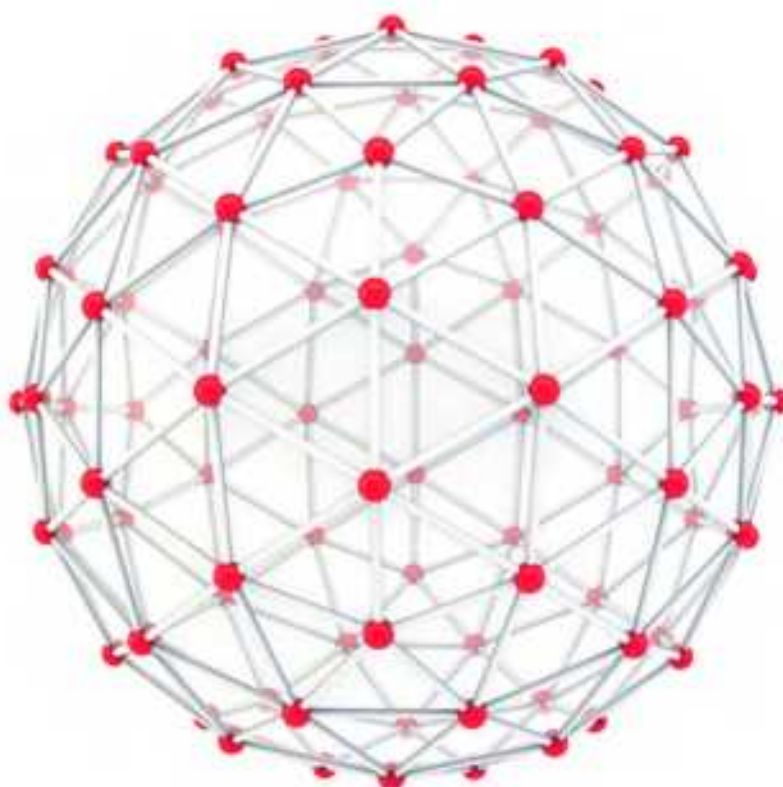


SPANISH NUCLEAR INDUSTRY 2025





THANK YOU

To all the companies that make
this catalogue real.

AMPHOS²¹
an RSK company



EAG
ENFERMERAS AGRIKOLAS - ERESA

ensa

GDES

Iberdrola

KONECRANES[®]
Lifting Businesses[®]

newtesol
new testing technologies

proinsa
GRUPO SALEN



anav
analog positive

coapsa

endesa

enusa

GE VERNOVA

IDOM

marSein

Nfq

samson
SAMSON RINGO

Westinghouse

cen solutions

edp

enresa

enwesa

GRUPO EULEN

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Nusim, S.A.U.
Ringo Válvulas, S.L.

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Enwesa Operaciones, S.A.
GD Energy Services
Grupo Eulen
IDOM Consulting, Engineering, Architecture, S.A.U.
Ingecid, S.L.
Marsein
Nfoque Advisory Services, S.L. (NFQ)
Proinsa, S.A.U.
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Web directory

The suppliers of electrical systems currently provide support services to nuclear sites in operation and maintenance in more than 20 countries, such as for example, Belgium, Brazil, Bulgaria, China, Slovakia, Slovenia, United States, Finland, France, India, Japan, Mexico, United Kingdom, South Africa, Sweden, Taiwan, etc.

These companies work through agreements with Spanish companies with which they have developed strong technological links. This has led to as framework of mutual benefit, through which the Spanish industry has been able to participate in the development of nuclear projects all over the world.

The design, manufacture and supply of fuel to Spanish and international nuclear power plants is made by the public capital company ENUSA Industrias Avanzadas and is responsible for the supply of raw materials and their processing right through to the final elaboration of the product. It is the owner and operator of the fuel elements factory in Juzbado (Salamanca), one of the most innovative in Europe which, since the start of its operation in 1985, has manufactured more than 28,418 fuel elements for both Spanish and foreign nuclear power plants.

The manufacture of capital equipment is made by Spanish companies who cover the production of main equipment to turbine alternators, valves, cranes, piping, boilers or equipment for handling the storage

of fuel for both Spanish and foreign nuclear power plants, with a recognized level of quality. At present more than 80% of their annual production is exported.

At present, the whole portfolio of orders for the supply of large components as well as a high percentage of the rest of components of this group of companies is for exports.

The Spanish engineering and services companies have created an important engineering capacity for nuclear power plants, providing support in the management of the construction of new plants and in the operation and maintenance of the plants in operation, with a very diversified activity in which they export more than 60% of their annual production and in some cases up to 100%.

These companies have developed very specialised services such as the supply of simulators, training programmes for operators, in service inspection and the development of support and improvement systems in production. Their clients include all of the Spanish nuclear companies and a large number of foreign entities.

Some of these companies have laboratories for radiological analysis which offer an integral service that responds to all the needs of the sector and which are focused on the efficient and sustainable management of their activities.

Radwaste management in Spain is carried out by the National Radwaste Company, Enresa. It is a public company and is an important international reference and example as its activities are studied and monitored by more than 15 countries around the world who have visited its site.

Very low, low and medium activity radwaste from nuclear sites, hospitals research centres and industry is managed in the Storage Centre in El Cabril, located in the province of Cordoba.

The fuel used in the nuclear power plants is stored in the onsite pools located at the facilities. When these are completed, the spent or irradiated fuel is stored in dry storage in the Individualised Temporary Storage Facilities (ITSFs), also located at the facilities. As of 31st December 2024 there were six Individualised Temporary Storage Facilities in operation and four in the construction permit process at different Spanish nuclear power plants.

Among its activities Enresa is also responsible for decommissioning nuclear and radioactive sites and was a pioneer in the decommissioning of the nuclear power plants of Vandellós I and José Cabrera.



ELECTRICITY UTILITIES

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EDP
ENDESA, S.A.
IBERDROLA, S.A.
NATURGY

12-19

—
The Spanish electric utilities constanly work towards excellence in the management of nuclear power plants with a strong commitment to enabling long term production in a safe way.



ENDESA, S.A.

C/ Ribera del Loira, 60 (Campo de las Naciones)
28042 Madrid
Tel.: +34 912 131 000



Founded in 1944, **Endesa** is a leading player in Spain’s electricity sector and the second-largest operator in the Portuguese electricity market. The company, part of the multinational energy group Enel, employs nearly 9,000 professionals and serves 10.2 million electricity customers and 1.77 million gas customers.

Endesa’s core business focuses on the generation, distribution, and sale of electricity. It is also a key actor in the natural gas sector and offers a wide range of energy-related services.

ZERO-EMISSIONS GENERATION AND GRID DEVELOPMENT: KEY PRIORITIES

One of **Endesa’s** top priorities is the progressive reduction of greenhouse gas (GHG) emissions associated with electricity generation. This commitment is driven by a



growing focus on renewable energy sources and a clear target: to become a net-zero emissions company by 2040.

Endesa’s strategy for a decarbonised energy model is firmly linked to its commitment to a just transition—ensuring that no one is left behind. This approach is reflected in the development plans the company is rolling out in communities surrounding its decommissioned thermal power plants.

In the short term, **Endesa’s** new 2025–2027 strategic plan sets a record-high gross investment of €9.6 billion for the period, an increase of 8% over the previous plan. This is the highest investment figure since the company adopted its current operating scope in the Iberian Peninsula in 2014. These numbers provide an insight into the company’s ambition for the upcoming years and the extensive opportunities it sees in the Iberian energy sector.

42% of the €9.6 billion investment planned through 2027—roughly €4 billion—will be allocated to the distribution grid. As the backbone of the energy transition, the grid is key to integrating increasing amounts of renewable energy, supporting the expansion of electric mobility, and enabling self-consumption. This Investment represents a 45% increase compared to the amount allocated for this infrastructure in the previous plan. **Endesa’s** priorities include meeting the rising demand for new connections, improving service quality, and advancing the digitalisation of the grid.

Generation is the other major pillar of **Endesa’s** strategic plan, accounting for 39% of total investment—€3.7 billion. This investment supports the company’s zero-emissions target by 2040, notably the elimination of coal from its island generation operations by 2027, after closing all coal-fired plants in the peninsula in 2023.</



IBERDROLA, S.A.

Headquarters
Plaza Euskadi, 5
48009 Bilbao (Vizcaya)
Tel.: +34 944 151 411

Iberdrola Generación Nuclear
C/ Tomás Redondo, 1
28033 Madrid
Tel.: +34 915 776 500



Iberdrola is a private global company with experience forged over the span of more than hundred seventy years of history at the service of energy development, supply guarantee, quality and innovation.

Iberdrola owns a balanced, efficient and well diversified grid, guaranteeing its response capacity in any energy related matter.

BUSINESS OBJECTIVE

The company has taken a decisive and pioneer bet to use cleaner generation technologies, fight against climate change and respect towards the environment, becoming world wide leader in wind power.

Fighting against climate change and in favor of sustainable development is one of the strongest commitments of Iberdrola, establishing as environmental objective to reduce the CO₂ emissions below 150 gr per kWh in 2030, that is, 50% below the specific emissions released by the company in 2007 and be carbon neutral by 2050.



STRATEGIC PLAN

At Iberdrola, we work with the purpose of building an electric, healthy, and accessible energy model, based on the well-being of people and the preservation of the planet. To achieve this, in March 2024, we updated our commitments and strengthened our investment strategy with 41 billion euros for the period 2024-2026, focusing on boosting the electrification of the economy and anticipating new sources of electricity demand.

GENERATION MIX

The company has an installed capacity of 56,668 MW worldwide. In Spain, the total installed capacity is 31,772 MW. In 2024, 38% of the company’s production in Spain came from nuclear energy, followed by hydraulic energy (32%), renewable energy (21%), combined cycles (7%), and cogeneration (2%).





NUCLEAR SYSTEMS SUPPLIERS

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GE Hitachi Nuclear Energy
Westinghouse Electric Spain

22-25

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Nuclear systems suppliers provide support and maintenance services to nuclear sites in operation across more than 20 countries.



SERVICES, PRODUCTS AND TECHNOLOGIES AVAILABLE



GE Hitachi Nuclear Energy (GE Vernova, Nuclear division) is a leading global supplier of advanced reactors, small modular reactors and nuclear services. The **GE Hitachi Nuclear Energy** company is part of GE Vernova, the alliance between GE and Hitachi established in 2007 to provide service to the nuclear industry worldwide is maintained. This alliance implements a joint strategic vision that consists of creating a wide range of solutions, expanding its capabilities for opportunities for new reactors and services. The alliance offers its customers around the world the leading technology required to effectively improve reactor operation, power and safety.

BUSINESS OBJECTIVE

GE Hitachi Nuclear Energy offers innovative solutions that make nuclear energy the smartest option to provide cleaner, safer, baseload energy for the future, with the ability to follow the loads of the interconnected grid. **GE Hitachi Nuclear Energy** 's commitment is to offer its customers, the community and the environment a balanced spectrum of advanced technologies, effective, reliable services and global expertise to meet the world's growing energy needs. The worldwide movement to minimize climate change by curtailing carbon emissions impacts every industry, including power generation. **GE Hitachi Nuclear Energy** stands as a pioneer in one of the most effective methods to address this critical issue: nuclear power generation. Nuclear energy is vital to meeting the world's energy needs while mitigating excess greenhouse gases. Every day, two hundred gigawatts (GW) of all carbon-free energy is generated from GE Hitachi Nuclear Energy 's BWR.

The **GE Hitachi Nuclear Energy** alliance (GE and Hitachi) is recognized as the world's foremost developer of boiling water reactor, robust fuel cycle products, and high-value reactor services. Beginning in the 1950s, GE developed boiling water (BWR) technology and has since developed nine evolutions of it, including the advanced light water design ABWR, and the ESBWR, as well as the BWRX-300 in the segment. of Modular Reactors. Additionally, the PRISMA sodium-cooled generation IV reactor has been consolidated in collaboration with TerraPower under the name Natrium™.

NUCLEAR PLANT PROJECTS
Advanced Boiling Water Reactor (ABWR)

The ABWR is the world's first-Generation III nuclear plant design in operation today, providing the benefit of a combined twenty-five reactor-years of operational experience. GEH's first ABWR began commercial operation at Kashiwazaki-Kariwa in Japan,



NUCLEAR POWER PLANTS

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ANAV, Ascó & Vandellós II Nuclear Power Plants
CNAT, Almaraz I & II and Trillo Nuclear Power Plants
Iberdrola, Cofrentes Nuclear Power Plant

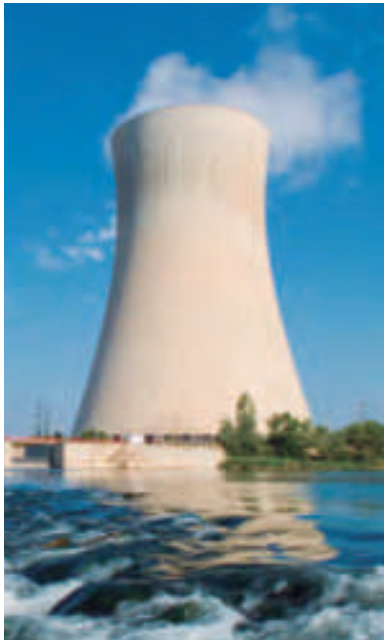
28-37

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Spanish nuclear power plants operate in a continuous, reliable, safe and clean way, diving growth in their zones of influence.

ASCÓ NUCLEAR POWER PLANT

Ascó Nuclear Power Plant
Avda. de la Centrales, s/n
43791 Ascó (Tarragona)
Tel.: +34 977 415 000



ASCÓ NUCLEAR POWER PLANT

The **Ascó Nuclear Power Plant** is located on the right bank of the Ebro River in the district of Ribera d´Ebre, in the municipal area of Ascó in the province of Tarragona. Its construction began in 1972 and 81% of the construction and equipment assembly work was carried out by Spanish companies.

The **Ascó Nuclear Power Plant** has two pressurised water reactors (PWR), the cooling water for the two units is provided by the Ebro River.

Unit I of the Plant, with a thermal power of 2,940.6 MWt and an electric output of 1,032.5 MWe, belongs to ENDESA and it initiated its commercial operation on December 10th, 1984.

Unit II, with a thermal power of 2,940.6 MWt and an electrical output of 1,027.2 MWe, is jointly owned by ENDESA (85%) and IBERDROLA (15%), and it initiated its commercial operation on March 30th, 1986

The **Ascó Nuclear Power Plant** employs 453 people, of which approximately half are university graduates. In addition, the Plant has over 565 staff members from stable contractor companies and that during refueling periods there is an addition 1,000 to 1,300 workers.

Ascó I NPP reached 40 years of operation on 13 August 2023, in accordance with the criteria set by the Nuclear Safety Council, which establishes the first criticality (13/8/83) as the starting date for the operation of a nuclear power plant. In this respect, Unit 2 will reach 40 years of operation on 23 October 2025.

Both units continue to work towards the long-term extension of a safe, reliable and sustainable operation that will continue to provide abundant energy to society, thereby contributing to the fight against global warming.

VANDELLÓS II NUCLEAR POWER PLANT

Vandellós II Nuclear Power Plant
Apartado de correos, 27
438



FUEL

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ENUSA Industrias Avanzadas, S.A., S.M.E.

40-41

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A Spanish company is responsible for all stages of the nuclear fuel production process, from the delivery of raw materials, through to their processing and manufacturing.



EQUIPMENT GOODS

CEN Solutions
Coapsa Control, S.L.
Equipos Nucleares, S.A. S.M.E.
Konecranes and Demag Ibérica, S.L.U.
Newtesol, S.L.
Nusim, S.A.U.
Ringo Válvulas, S.L.

44-57

Equipment goods manufacturing
companies export more than 80% of
their output.



ENGINEERING AND SERVICES

Amphos 21
EAG (Empresarios Agrupados - GHESA)
Enwesa Operaciones, S.A.
GD Energy Services
Grupo Eulen
IDOM Consulting, Engineering, Architecture, S.A.U.
Ingecid, S.L.
Marsein
Nfoque Advisory Services, S.L. (NFQ)
Proinsa S.A.U.
Tamoin
VIRLAB, Expertise in Vibrations and shocks. Testing Laboratory

60-83

The Spanish engineering and services companies have and continue to be engaged in nuclear projects across more than 40 countries.



RADIOACTIVE WASTE MANAGEMENT AND DECOMMISSIONING

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Enresa

86-87

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Radioactive waste management and decommissioning of nuclear installations in Spain has acquired international prestige.

WEB DIRECTORY

A

Almaraz I and II Nuclear Power Plant	www.cnat.es
Amphos 21	www.amphos21.com
Ascó Nuclear Power Plant	www.anav.es

C

CEN Solutions	www.censolutions.es
Cofrentes Nuclear Power Plant	www.cncofrentes.es
Coapsa Control, S.L.	www.coapsa.com

E

EDP	www.edpenergia.es
Empresarios Agrupados	www.empresariosagrupados.es
Endesa, S.A.	www.endesa.com
Enresa	www.enresa.es
ENUSA, Industrias Avanzadas S.A., S.M.E.	www.enusa.es
Enwesa Operaciones, S.A.	www.enwesa.com
Equipos Nucleares, S.A., S.M.E.	www.ensa.es

G

GD Energy Services	www.gdes.com
General Electric Vernova Hitachi (GE Vernova Hitachi)	www.nuclear.gepower.com
Grupo Eulen	www.eulen.com

I

Iberdrola	www.iberdrola.es
Ingecid	www.ingecid.es
IDOM Consulting, Engineering, Architecture, S.A.U.	www.idom.com

M

Marsein	www.marsein.com
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