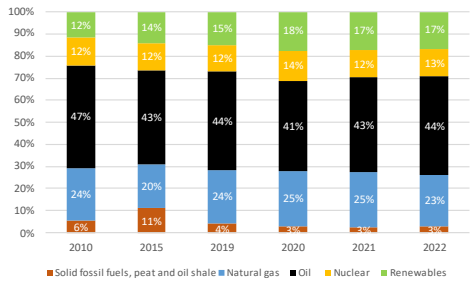


REPowerEU Two Years on Spain

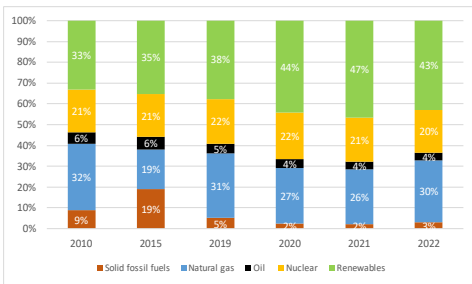
Key energy figures

Graph 1: Energy mix



Source: Eurostat

Graph 2: Electricity mix



Source: Eurostat

Save energy

1. KEY ENERGY SAVINGS MEASURES

Spain is implementing energy efficiency measures to contribute to energy security further, such as:

- Spain adopted the 'Plan Más Seguridad Energética (+SE)' that includes 73 energy security measures covering six areas, with the first one being savings and energy efficiency.

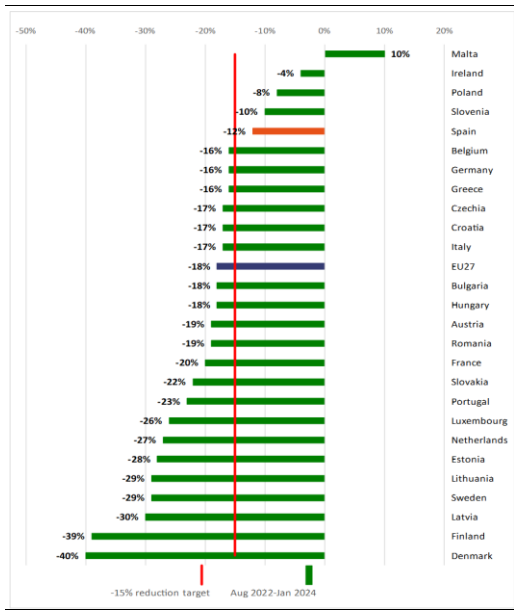
(1) Council Regulation (EU) 2023/706 of 30 March 2023, amending Regulation (EU) 2022/1369

- This comes on top of existing measures adopted such as the energy efficiency inspection campaign.

2. GAS DEMAND REDUCTION

Spain has reduced its gas consumption by **12%** in the period **August 2022 – January 2024**, below the decrease achieved at EU level (18%) and the 15% voluntary gas demand reduction agreed at the EU level (1).

Graph 3: Natural gas demand reduction (August 2022 – January 2024)



(1) Cyprus does not use natural gas
Source: Eurostat, DG ENER calculations

Diversify energy supplies

1. KEY ACTIONS

Fossil fuels continue to occupy a central role in Spain's energy system. They represented 70.1% of Spain's primary energy being imported in 2021. Spain aims to reduce its dependence to 51% in 2030, as expressed in its updated draft NECP, notably by increasing renewable production and reducing demand.

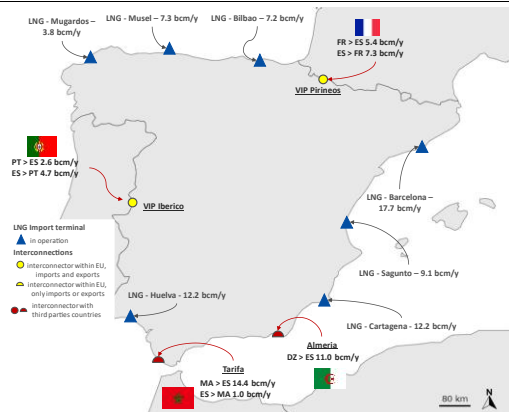
2. GAS INFRASTRUCTURE DEVELOPMENTS

Spain has a diversified gas supply portfolio and gas is mostly used for electricity production and industry. Spain has the largest regasification capacity in Europe, amounting to 61.9 bcm/year. Also, its storage capacity (34.1 TWh) was filled to 87.2% in mid-January 2024.

Regarding diversification, until 2021 Algeria was Spain's main gas supplier (43% share of total gas imports). Other LNG gas imports mostly originate from Nigeria, the US, Russia and Qatar.

Spain has limited exposure to Russian gas shortages. Having a diversified infrastructure and low dependence on Russian gas meant Spain was not exposed to gas shortages due to disruptions in Russian flows. The government also approved an Energy Security Plan.

Map 1: Cross-border gas infrastructure



Source: European Commission map recreation (based on ENTSO-G)

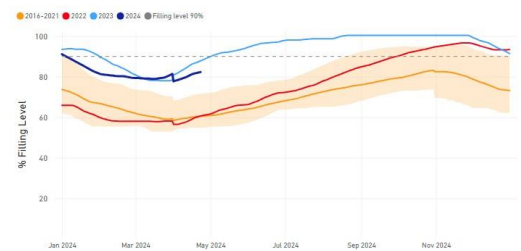
(2) Spain has four underground storage facilities: Gaviota (offshore), Serrablo, Yela (these are managed by Enagas), and Marismas (managed by Naturgy Almacenamientos Andalucía).

3. GAS STORAGE

Spain operates four underground storage facilities⁽²⁾ with a total capacity of about 3.2 bcm, representing close to 10% of its total yearly demand.

Spain fulfilled its gas storage obligations last winter, reaching 100.4% by 1 November 2023⁽³⁾, and ended the winter season with a storage filled at 77.71% by 1 April 2024.

Graph 4: Storage levels in Spain



Source: JRC calculation based on AGSI+ Transparency Platform, 2024

Energy platform

- In the **four EU tenders** for joint gas purchase organised **under AggregateEU in 2023**, 113 companies across the EU expressed gas demand of over 54 bcm. 48 suppliers replied with bids of more than 61 bcm, resulting in **over 42 bcm of demand matched**.
- In the **first mid-term tender of 2024**, 19 companies expressed 34 bcm of gas demand for the next 5 years, with **97.4 bcm offered by suppliers**.
- According to the indicative data obtained through AggregateEU, companies from **Spain** aggregated gas demand of **4.28 bcm** in 2023 under the EU Energy Platform. This represents the equivalent of 13.12% of the country's yearly gas consumption.

(3) Regulation (EU) 2022/1032 of the European Parliament and of the Council of 29 June 2022 amending Regulations (EU) 2017/1938 and (EC) No 715/2009 with regard to gas storage.

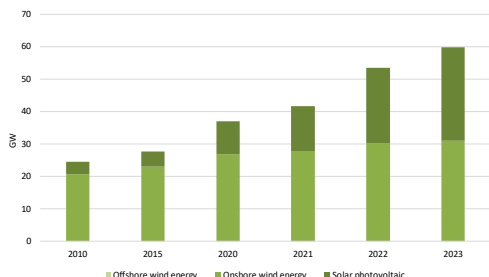
Produce clean energy

1. INSTALLED RENEWABLE ELECTRICITY CAPACITY, IN WIND AND SOLAR

In **2023**, Spain installed around 6.3 GW of renewable electricity capacity, bringing the total to **80.1 GW** (vs. 62 GW in 2021).

In **2023**, the annual growth rate of installed renewables power capacity rose to **8.6%** compared to 8.2% in 2021⁽⁴⁾.

Graph 5: **Installed solar and wind power capacity (in GW)**



- (1) The renewable power capacity data reflects the capacity installed and connected at the end of the calendar year.
- (2) In 2023, Spain installed 0.9 GW of wind power capacity (vs. 1.1 GW in 2021).
- (3) In 2023, Spain installed 5.4 GW of solar photovoltaic capacity (vs. 3.6 in 2021).

Source: IRENA, Renewable capacity statistics, 2024

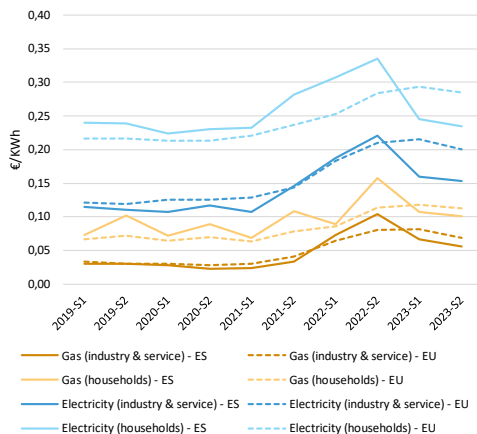
2. ELECTRICITY INFRASTRUCTURE DEPLOYMENT

Spain needs to invest in the modernisation and strengthening of its electricity grid, to further integrate renewable energy and contribute to security of supply. Spain has made strides to improve transmission grid access at the wholesale level. As a result, if approved, transmission grid permits would already allow Spain to reach its 2030 targets. However, access at distribution level (retail, energy communities and large self-consumers) faces challenges to evacuate production and further cooperation between the different levels of government could help. Spain's electricity interconnection ratio was 4.4% of installed generation capacity in 2023. Work on new interconnections with Portugal (ongoing, 3 GW) and France (both ongoing and planned, 8 GW) is expected to further increase interconnection capacity.

⁽⁴⁾ International Renewable Energy Agency (2024). Renewable capacity statistics 2024

Energy price developments

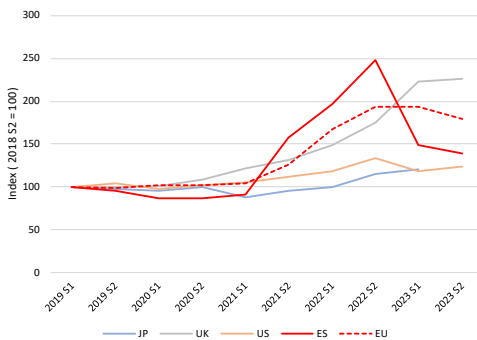
Graph 6: **Spain's energy retail prices for households and industry & service**



- (1) For industry, consumption bands are I3 for gas and IC for electricity, which refer to medium-sized consumers and provide an insight into affordability
- (2) For households, the consumption bands are D2 for gas and DC for electricity
- (3) Industry prices are shown without VAT and other recoverable taxes/levies/fees as non-household consumers are usually able to recover VAT and some other taxes

Source: Eurostat

Graph 7: **Trends in electricity prices for non-household consumers (EU and foreign partners)**



- (1) For Eurostat data (EU and ES), the band consumption is ID referring to large-sized consumers with an annual consumption of between 2 000 MWh and 20 000 MWh, such as in electricity intensive manufacturing sectors, and gives an insight into international competitiveness
- (2) JP = Japan

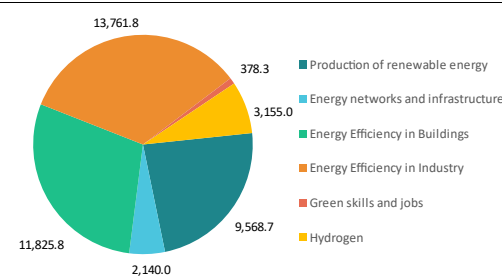
Source: Eurostat, IEA

Smartly combine investments and reforms in the RRP

Amended Recovery and Resilience Plan (RRP), including a REPowerEU chapter:

- Approved by Council: on 17 October 2023
- Total amount: EUR 163 billion
- Amount allocated for energy: EUR 40.8 billion
- Climate tagging: RRP: 39.9 %; REPowerEU chapter: 75 %

Graph 8: **Energy-related investments in the RRP (in EUR million)**



Source: European Commission

Tangible results: reforms & investments

- **Energy efficiency:** Reform of the Horizontal Property Law to facilitate decision-making by communities of owners to renovate buildings and improve access to bank financing. Achieve 30 % primary energy demand reduction in at least 510 000 residential dwelling renovation actions (355 000 unique dwellings) and at least 1 050 000 m² in public buildings.
- **Renewable energy:** Reforms to fix a deadline for the regulator to issue a report to authorise new renewable energy projects and establish a new unit within the central administration to support processing permit applications of renewable energy projects.
- **Infrastructure:** Reform to develop regulatory sandboxes to enable pilot projects to foster research and innovation in the electricity sector. Investments to make at least five innovative storage projects operational, equivalent to 660MW of installed capacity.
- **Hydrogen:** Investments to authorise at least 700 MW of total electrolyser capacity, including complementary infrastructure.

Highlights of the National Energy and Climate Plan

- The **draft updated NECP** was submitted to the European Commission in June 2023.
- Member States are due to submit their **final updated NECP by 30 June 2024**, taking into account the Commission recommendations.
- For more information see the dedicated [webpage of the European Commission on the NECPs](#).

Strengthening competitiveness with the Net Zero Industry Act

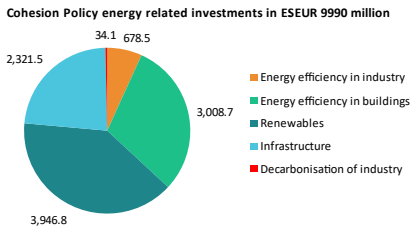
Spain has a significant presence in the wind supply chain and is showing positive developments in the manufacturing of solar modules, batteries and electrolysers. Spain is one of the few net exporters of wind components in the EU, hosting manufacturing facilities across the entire value chain and spread across its territory with, for example, an estimated overall capacity of at least 500 offshore towers per year. Regarding solar PV, Spain imports most of its panels. However, at least three module manufacturing units have an estimated manufacturing capacity of nearly 500 MW per year. Additionally, another 500 MW module manufacturing plant is nearing completion, with several others underway. Spain is the leading producer of inverters in the EU, with several manufacturing plants, one boasting an annual output capacity of 30 GW. On battery manufacturing, Spain is currently engaged in several projects to establish large-scale production plants for lithium-ion batteries, with maximum capacities ranging from 10 to 40 GWh, all set to be fully operational between 2025 and 2030. In 2024, a 500 MW electrolyser assembly line also came online. This is scalable to more than 1 GW per year.

Other EU initiatives

Cohesion Policy provides significant support to REPowerEU in all EU MS, with a total of EUR 89 billion worth of investments focusing on regions most in need in the energy transition.

Most resources concentrate on energy efficiency in the buildings sector (i.e. 720 000 dwellings across the EU will be renovated and public buildings will decrease their energy consumption by 6000 GWh/year) and on energy infrastructure (i.e. 4.9 GWh of additional electricity storage deployed), followed by renewables (e.g. 9.5 GW of additional renewable energy capacities installed).

Graph 9: **2021-2027 energy-related investments in the Cohesion Funds supporting REPowerEU**



Source: Cohesion Open Data⁽⁵⁾

⁽⁵⁾ <https://cohesiondata.ec.europa.eu/d/hqyj-qyin>