

Spain



Trilemma Rank
15

Trilemma Score
77.9

Balance Grade
ABA

Spain is a strong Trilemma performer. Equity and Sustainability are the strongest dimensions, with a slightly lower score in Security due mainly to dip in storage capacity. Although Spain receives a high score for Energy Equity, a slight increase in electricity prices to consumers has had a slight impact on the scores. Spain gets a balance grade of ABA and its global ranking is 15.

Population
46.7 (millions)

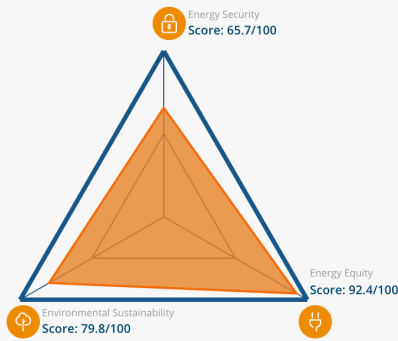
Land Area
499.6 (thousand sq. km)

GDP Per Capita
30,371 (PPP US\$)

Industrial Sector
20.0 (% of GDP)

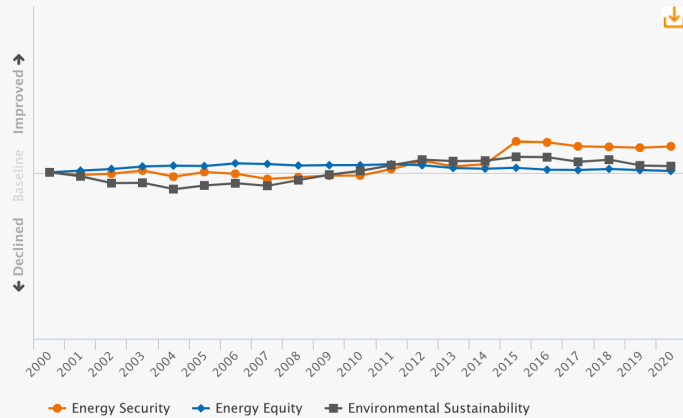
GDP Growth
2.4 (annual %)

Balance



Historical Trilemma Scores

Trend lines track the country's performance in each dimension, beginning with a baseline of 100 in the year of 2000



Trends and Outlook

Spain has set a target of a 20% share of renewable energy in gross final energy consumption by 2020. The share of renewables reached an estimated 18.1% in 2019 when the share of renewables in electricity generation was 36.8%, slightly lower than the previous year mainly due to a reduction in hydroelectric generation. Despite this and the favourable economic context (+2% GDP in 2019 vs 2018), CO2 emissions have fallen by 6.2% (29.3% lower than in 2005). This was achieved by replacing coal plants with natural gas and an increase in wind and solar energies. Primary and final energy intensities have fallen significantly, by 4.8% and 3.1% respectively.

The Government presented a Strategic Energy and Climate Framework in 2019, incorporating the National Integrated Energy and Climate Plan 2021-2030, the Draft Bill on Climate Change and Energy Transition and the Just Transition Strategy. The long term targets are to reach 100% renewable energy in the power sector and climate neutrality in 2050 at the latest. The proposals contain several elements that might help Spain improve its performance in the different trilemma dimension. For 2030, these include reducing GHG emissions by 23% compared to 1990, a higher share of renewable energy production to reach 42% of final energy use and 74% of power production, a higher level of energy efficiency to achieve a reduction of 39.5%, focused on households energy rehabilitation in particular, and sustainability of transport. Coal is being phased out with the closure of all coal-fired power plants by 2040 and the orderly closure of nuclear power plants.

The Spanish economy was hit hard by the COVID-19 crisis and the government, in line with EU policy, sees the acceleration of energy transition as an opportunity for recovery. To this end, it issued a Royal Decree in June 2020 to promote the decarbonisation and sustainability agenda with measures on renewable energies (access and connection, auctions...), new business models (storage, demand aggregators, renewable energy communities). The government is also working on a roadmap for production of green hydrogen.

Key metrics

Metrics are determined relative to other countries, with a full bar representing a score of 100.

	2020 Performance	Trend 2010-20
Energy security		
Import dependence	70%	▲
Diversity of electricity generation	85%	▲
Energy storage	20%	▲
Energy equity		
Access to electricity	95%	▶
Electricity prices	80%	▼
Gasoline and diesel prices	90%	▼
Environmental sustainability		
Final energy intensity	75%	▼
Low carbon electricity generation	60%	▲
CO2 emissions per capita	70%	▲
Country context		
Macroeconomic stability	90%	▲
Effectiveness of government	85%	▲
Innovation capability	75%	▲