

Trilemma Rank
55

Trilemma Score
67.0

Balance Grade
BAD

Saudi Arabia ranks globally at 55 and its balance grade is BAD. Its Equity performance has been consistently strong, with universal access and very affordable energy prices for its citizens. The Security index for Saudi Arabia shows mid-range scores. The Kingdom has made huge strides in its transition to natural gas, which has gradually displaced inefficient fuels in power generation. There are plans to increase the share of renewables in the energy mix. Meanwhile, energy price reforms and energy efficiency are on track and have succeeded in curbing consumption. The country was the third fastest reducer of emissions growth in 2018. It has put forward the concept of developing a Circular Carbon Economy (CCE), as part of its G-20 Presidency, as a model for sustainable cleaner energy.

Population
32.9 (millions)

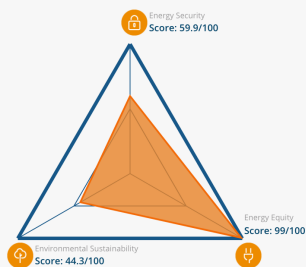
Land Area
2,149.7 (thousand sq. km)

GDP Per Capita
23,339 (PPP US\$)

Industrial Sector
49.5 (% of GDP)

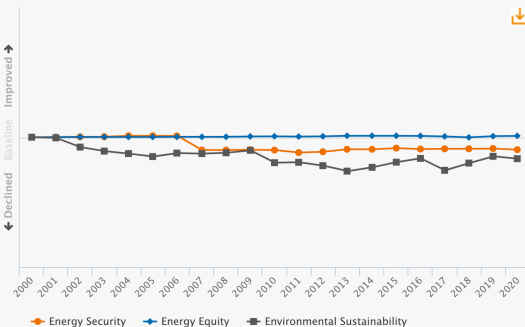
GDP Growth
2.4 (annual %)

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

Saudi Arabia is among the top three crude oil producers globally and the world's largest oil exporter. Despite the attacks on its oil facilities in September 2019 that aimed at paralysing its oil production capabilities, it managed to restore production quickly while exports were uninterrupted, a key indicator of its energy resiliency, which explains its high score on energy security.

According to BP's 2019 Statistical Review of World Energy, Saudi Arabia is ranked 13th in terms of installed power capacity and ranked high on energy equity in the Trilemma index. The energy sector is the largest contributor to the national economy (~42% GDP). To diversify its economy and reduce reliance on oil revenues, it launched an ambitious masterplan "Vision 2030", with the energy sector one of the most visible and important sectors included in the economic reform programme.

Gasoline and residential electricity price reforms and energy efficiency programs being implemented have helped to increase government revenues, provide consumers with an incentive to invest in energy efficiency, and curb rapid growth in domestic energy consumption and CO2 emissions. For instance, domestic gasoline prices are now compatible with international prices. In the residential and business sectors, smart meters will gradually replace mechanical ones starting February 2020, providing accurate readings and responsive data for balancing electric loads. This initiative is one of more than 80 initiatives being implemented nationwide to improve efficiency in energy consumption across the three key sectors: industry, transport, and buildings.

Electricity generation relies on hydrocarbons, with natural gas accounting for about 49% of generation. Gas is progressively displacing inefficient liquids from the energy mix. In February 2020, the Kingdom approved plans to develop the Jafurah gas field with first gas expected to be on-stream in 2024. These volumes of natural gas will help to meet the increasing demand for gas in the energy sector, supply feedstock to the growing petrochemicals industry and for water desalination.

Renewables are gaining momentum, too. Saudi Arabia commissioned the 300 MW Sakaka solar project in 2019. Renewable projects rounds 2 and 3 with total capacity of 1470 MW and 1200 MW, respectively, are in the bidding phase. The government recently signed a tender to build a world-class production facility powered by renewable energy generated by wind and solar to supply 650 tons of carbon-free hydrogen daily in the city of Neom near the Suez Canal, some of which will be for export.

Primary energy consumption per capita has been declining following the implementation of price reforms and energy efficiency initiatives reaching 322 Gigajoules in 2019 (a drop by 10 Gigajoules per capita from 2017 levels). In terms of carbon emissions, Saudi Arabia was the third fastest reducer of emissions growth in 2018 among the G20 countries. It has adopted the approach of developing a Circular Carbon Economy (CCE) as a way to advance technology innovation toward sustainable and cleaner energy systems and carbon neutrality. The kingdom's carbon emissions from fuel consumption had already declined in 2019 and are projected to fall further by 4% in 2020 due to COVID-19.

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	Progress bar	▶
Diversity of electricity generation	Progress bar	▶
Energy storage	Progress bar	▲
Energy equity		
Access to electricity	Progress bar	▶
Electricity prices	Progress bar	▲
Gasoline and diesel prices	Progress bar	▼
Environmental sustainability		
Final energy intensity	Progress bar	▼
Low carbon electricity generation	Progress bar	▲
CO2 emissions per capita	Progress bar	▼
Country context		
Macroeconomic stability	Progress bar	▲
Effectiveness of government	Progress bar	▲
Innovation capability	Progress bar	▲