

**Trilemma Rank**  
# 10

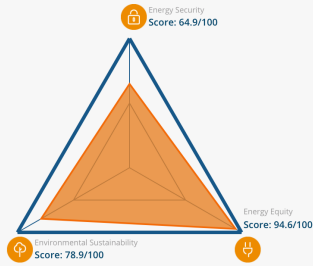
**Trilemma Score**  
79.5

**Balance Grade**  
AAA

New Zealand has consistently been among the top performers across all three dimensions. Maintaining the grading also means New Zealand has continuously improved its own performance. It has maintained its position in terms of Equity and Environmental Sustainability, driven by generation from renewables and managed emissions in the context of its population growth. But New Zealand's Energy Security has dropped, due to a decline in the diversity of primary energy supply and electricity generation since 2010. New Zealand's balance grade is AAA and its global ranking is 10.

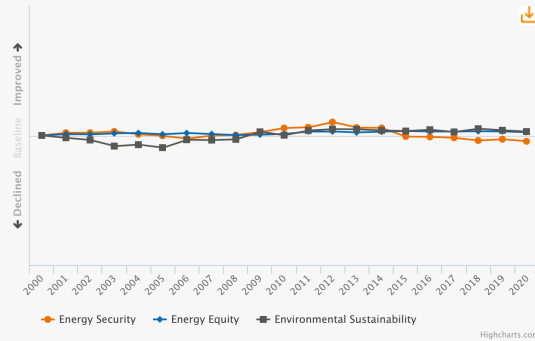
- Population**  
4.9 (millions)
- Land Area**  
263.3 (thousand sq. km)
- GDP Per Capita**  
41,945 (PPP US\$)
- Industrial Sector**  
20.4 (% of GDP)
- GDP Growth**  
2.8 (annual %)

**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**

New Zealand's zero carbon amendment to the Climate Change Response Act became law in 2019, committing the country to net zero carbon by 2050. The amendment included the setting up of an independent Commission to oversee carbon budgeting. This year, a further amendment reformed the Emissions Trading Scheme (NZ ETS) – a key tool for reducing emissions and meeting emission reduction targets – with new regulations expected to be in place before year's end. The newly set up Climate Change Commission will advise on emissions budgets and an emissions reduction plan in 2021.

There have also been changes to the Resource Management Act to improve freshwater management and respond to climate change though concerns have been raised within the energy industry on whether it is the right tool for climate change adaptation and mitigation. In response to COVID-19, the Government also introduced a short-term process to fast track projects that can boost employment and economic recovery. At the same time, a range of options is being considered to accelerate the use and supply of renewable energy and energy efficiency technologies.

In 2019, the Government released New Zealand's hydrogen vision exploring economic opportunities to support the transition to a low emissions future. The next stage is a roadmap that will explore issues that need to be resolved in relation to hydrogen's use in the wider economy. Currently under way and part of the roadmap is the development of an economic model providing an initial view of hydrogen supply and demand in New Zealand.

2020 is election year in New Zealand. Trends to watch are the possible effects a new government may have on energy policy development. There is also uncertainty about the implications of growing natural resource constraints, including for water and gas, and the effect these may have on New Zealand's energy sector.

Recent developments present both challenges and opportunities for the economy and energy system with the prospect of a major industrial electricity user – the Tiwai Point Aluminium Smelter – exiting the country as well as uncertainty over New Zealand's petroleum refinery and steel producer.

Currently, around 85% of New Zealand's electricity comes from renewable sources, the third-largest share of renewable electricity in the OECD. The exit of the smelter and possible excess hydroelectric capacity in the South Island may take New Zealand very close to 100% renewable electricity generation, strengthening the prospect of greater electrification of process heat (such as dairy processing) and transport as well as of hydrogen development. However, moving surplus hydroelectricity to where it is needed will require investment in the grid.

New Zealand's policy of early domestic and international isolation effectively stopped the transmission of the COVID-19 virus and allowed a return to work a lot more quickly. Energy demand consequently bounced back rapidly to normal levels.

Energy leaders are now grappling with the longer-term recovery. New Zealand's policymakers, businesses, investors and consumers all have important roles to play in shaping a new normal. The government is considering climate change and energy transition in putting together support packages, strategies and investment for the COVID-19 recovery.

**Key metrics**

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

	2020 Performance	Trend 2010-20
<b>Energy security</b>		
Import dependence	██████████	▼
Diversity of electricity generation	██████████	▼
Energy storage	██████████	▼
<b>Energy equity</b>		
Access to electricity	██████████	▶
Electricity prices	██████████	▼
Gasoline and diesel prices	██████████	▲
<b>Environmental sustainability</b>		
Final energy intensity	██████████	▼
Low carbon electricity generation	██████████	▲
CO2 emissions per capita	██████████	▲
<b>Country context</b>		
Macroeconomic stability	██████████	▲
Effectiveness of government	██████████	▼
Innovation capability	██████████	▲