



# How Big Will Hydrogen Be for the UAE?

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The UAE is hoping to make hydrogen a significant part of its transition away from fossil fuels in the coming years, according to the country's government. By 2030, the Emirates are aiming to have cornered at least 25% of the hydrogen fuel market as it develops its capabilities in the sector.

For a country that has built its vast economic wealth on gas and oil, the UAE is very cognisant that it must diversify its energy profile in the coming years. Having announced 2050 as its target for reaching carbon neutrality, the UAE is now investigating several [alternatives to fossil fuels](#) for both its economic revenue and its power demands going forwards – and hydrogen looks set to play a crucial role.

## A roadmap for success

The Emirati government is backing up its ambitious objectives with a detailed roadmap for the hydrogen fuel market. This includes three explicit objectives, which are as follows:

- Sourcing new destinations for hydrogen exports
- Exploring derivative manufacturing opportunities, such as the production of low-carbon steel
- Aligning with the country's overall 2050 targets for carbon neutrality

With regard to the first point, the UAE is believed to be sounding out primary export markets like Germany in Europe and India, Japan and South Korea in Asia. Meanwhile, it is also hoping to become a major producer of green ammonia and open the Middle East's first green steel production plant.

## Well-positioned for success

While the UAE has a well-established reputation as a fossil fuel producing nation, many of the skills and much of the infrastructure accrued from that industry will be transferable to the H<sub>2</sub> market. In particular, the Port of Fujairah – which is the third biggest bunkering hub in the world – should lend itself well to exporting hydrogen, since it already has a world-class energy shipping infrastructure in place.

For that reason, the UAE is ranked among the top 25 nations in the world in which to explore hydrogen, according to the Hydrogen Investability Index (H<sub>2</sub>i). “Already, countries representing nearly 90 percent of global gross domestic product have



policies or initiatives that support hydrogen markets,” [explains the Index report](#). “The Hydrogen Council estimates that there are now more than 350 large-scale hydrogen projects worldwide with \$500 billion of global investments in projects and value chain anticipated by 2030.”

## **Affordable energy for all**

One of the biggest concerns over the pursuit of hydrogen energy is the price tag associated with it. However, as research and development gathers pace and investment into the industry increases, costs are expected to fall – exactly as they have done with other green sources of energy, like solar and wind.

The UAE intends to be a global leader in that respect and early forecasts are optimistic it can attain that status. For example, the International Renewable Energy Agency (IRENA), with which the UAE has a cooperation understanding in place, estimates that green hydrogen will cost anywhere between \$0.80 and \$1.60 per kilogram, but Bloomberg LEF projects Emirati prices to be closer to the lowest end of that spectrum.