

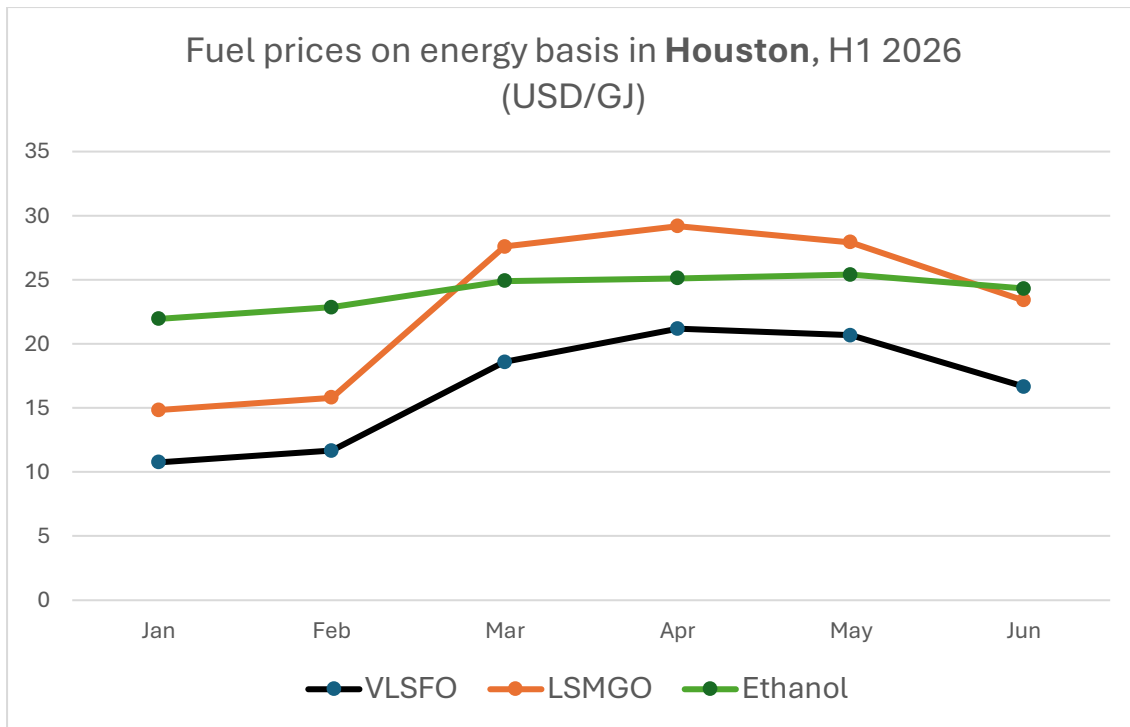
Bunker fuel and ethanol prices in H1 2026

Comparing marine-fuel prices matters because fuel is a major voyage cost and climate rules increasingly link the cost of shipping to the greenhouse-gas intensity of the energy used. Comparing prices in USD/GJ rather than USD/t puts fuels with different energy densities on a like-for-like propulsion-energy basis and shows when low-carbon alternatives could become commercially relevant, particularly once oil-market shocks and carbon costs are included.

Conventional ethanol is not yet used as a routine marine fuel. [Engines are ready](#). Deployment remains at the demonstration and first-bunkering stage: Maersk and CMA CGM carried out initial ethanol bunkering operations in 2026. These first operations show that ethanol can be handled and used in dual-fuel engines, but they do not yet constitute broad commercial adoption as a marine fuel. Renewable ethanol is sulphur-free and can offer lower lifecycle greenhouse-gas emissions; its lower energy density makes comparison on an energy basis essential.

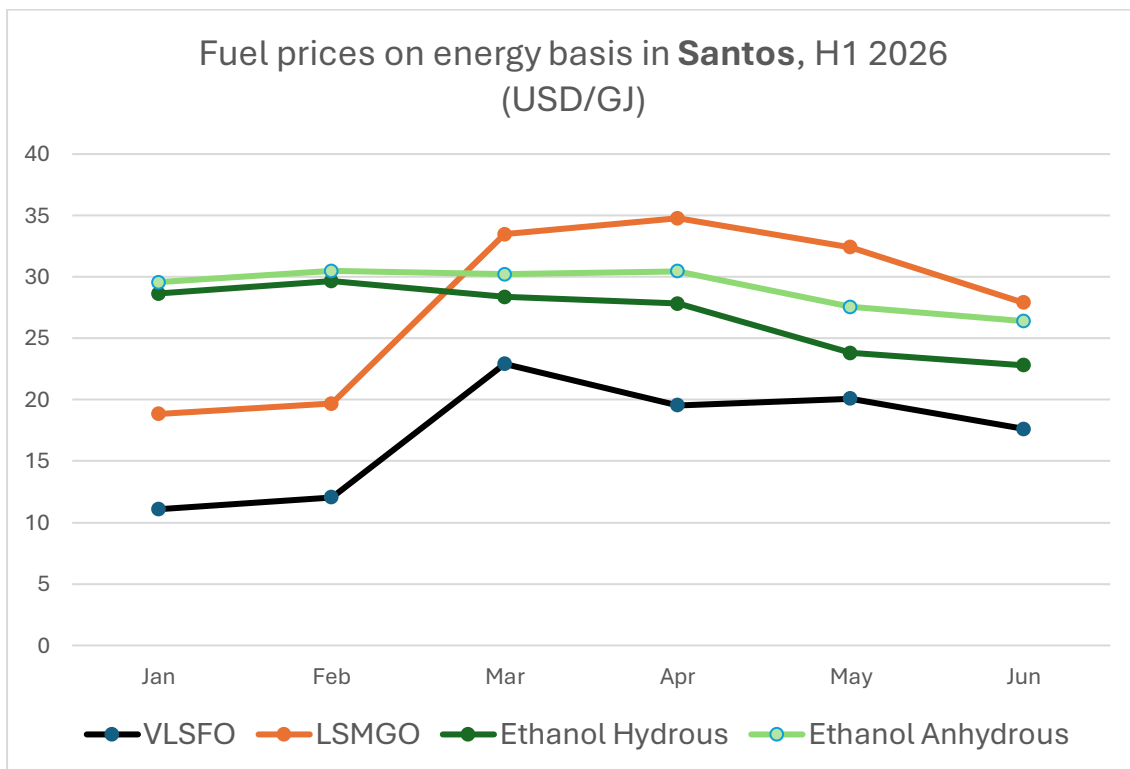
Very Low Sulphur Fuel Oil (VLSFO) remains shipping's principal conventional bunker fuel, accounting for around half of marine fuel volumes. It is the standard 0.5%-sulphur fuel used for main propulsion by most ocean-going vessels without scrubbers. Marine Gas Oil / Low Sulphur Marine Gas Oil (MGO/LSMGO) represents approximately a seventh of total marine fuel consumption and is primarily used in Emission Control Areas, as well as by smaller and specialized vessels and during port, auxiliary and manoeuvring operations.

Houston gives the price comparison particular strategic relevance. The Houston Ship Channel is one of the world's major maritime and energy hubs and the largest U.S. port complex by waterborne tonnage. It is also situated in the United States—the world's largest producer and exporter of fuel ethanol—giving the region access to a large, established domestic production base and export supply chain.



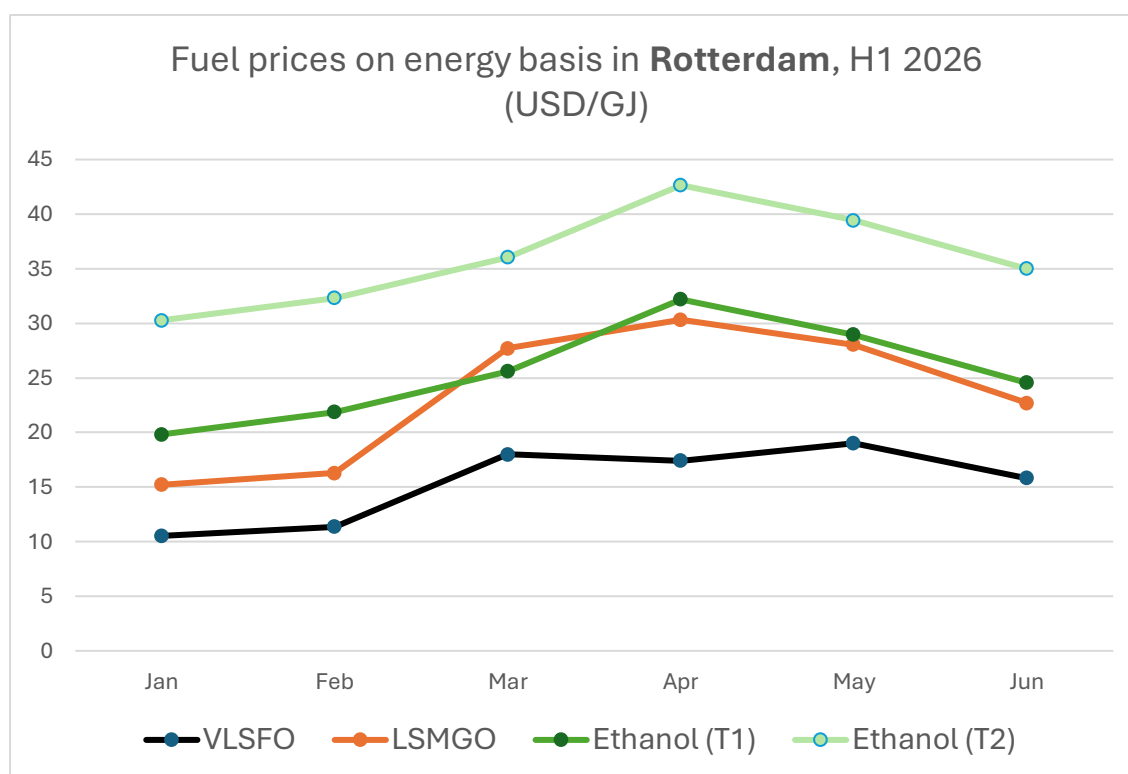
Source: Murex, Netco, Eco-Energy, USGBC and CEA

Brazil, the second-largest ethanol producer, exports both hydrous and anhydrous ethanol through Santos. The Santos chart separates the two grades: hydrous ethanol is generally cheaper reflecting its lower dehydration requirement. Santos complements Houston as a producer-exporter benchmark.



Source: Murex, Netco, Eco-Energy, USGBC and CEA

Rotterdam prices¹ provide the European import-hub benchmark. Similarly, prices in import-dependent Asian markets are more sensitive to freight costs.



Source: Murex, Netco, Eco-Energy, USGBC and CEA

Maritime fuel markets are highly exposed to geopolitics because petroleum production, refining and trade depend on a small number of exporting regions and strategic chokepoints such as the Strait of Hormuz. The Iran war demonstrated how quickly disruption can raise conventional bunker costs, particularly for MGO. Ethanol produced from geographically diverse agricultural feedstocks offers shipping an additional source of fuel supply and can reduce dependence on crude-oil trade routes.

During the Iran war, ethanol reached or approached energy-price parity with MGO across the three hubs. **In several monthly comparisons, ethanol was cheaper than MGO in the United States and Brazil, the world's two largest ethanol-producing countries.** VLSFO nevertheless remains the lower-cost benchmark. The charts therefore illustrate how a petroleum-supply shock can materially narrow ethanol's price disadvantage even before carbon and regulatory benefits are included.

¹ For Rotterdam, the ethanol comparison uses an estimated T1—or duty-unpaid—price. It is derived from the quoted T2 price by deducting the EU import duty of €192/m³. The duty may be excluded since most bunkering can be handled utilizing Free trade zone ethanol.

Emerging IMO carbon pricing could change the comparison. The IMO has been negotiating a global regulatory framework for shipping, and all the proposals discussed include a cap-and-trade mechanism, meaning CO₂ emissions will come at a cost. As ethanol was already within a few dollars per GJ of MGO in several months, a non-trivial emissions cost could erase the gap and tip the compliance-adjusted economics in favor of conventional ethanol.

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