

Quadrise Fuels International

Launch of low-carbon alternative to heavy fuel oil

Technology update

Alternative energy

16 December 2020

Price 2.08p

Market cap £22m

Net cash (£m) at end June 2020 excluding £2.0m convertible securities and potential £2m from second tranche of Bergen convertible 2.4

Shares in issue 1.08bn

Free float 72.9%

Code QFI

Primary exchange AIM

Secondary exchange N/A

Quadrise has launched bioMSAR. This is a synthetic alternative to heavy fuel oil (HFO) which produces 20–30% lower carbon dioxide (CO₂) emissions as well as lower nitrogen oxide and particulates. The new product provides a potential route for MSAR adopters to reduce their CO₂ emissions, which should in our opinion help increase Quadrise's market opportunity, and the speed and scale of market penetration.

Year end	Revenue (£m)	EBITDA (£m)	PBT* (£m)	EPS* (p)	DPS (p)	P/E (x)
06/17	0.1	(3.9)	(4.1)	(0.45)	0.0	N/A
06/18	0.0	(3.3)	(3.5)	(0.37)	0.0	N/A
06/19	0.0	(2.8)	(3.0)	(0.32)	0.0	N/A
06/20	0.0	(3.1)	(3.4)	(0.32)	0.0	N/A

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

Quadrise's established MSAR product is an oil-in-water emulsion consisting of around 70% refinery residues and 30% water, which is stabilised using specialist surfactant chemicals from Nouryon Surface Chemistry. bioMSAR uses 40–50% refinery residues, 40–50% renewable glycerol and 10% water plus Nouryon additives. Substituting renewable glycerol, which is a by-product from biodiesel manufacturing, for some of the refinery residues creates the CO₂ emissions savings and also reduces the synthetic fuel's water content. The MSAR process has already been proved to convert a range of difficult-to-handle fossil fuel residues to a useful fuel oil replacement. It is potentially applicable to other difficult-to-handle residues from biofuel refining as well.

Since bioMSAR is fully compatible and interchangeable with conventional MSAR, potential customers considering adopting conventional MSAR as a way of reducing energy costs have a route for lowering their CO₂ emissions as well. At present, the main lower-carbon alternative to HFO for shipping applications is liquefied natural gas (LNG). bioMSAR offers similar CO₂ reductions to LNG without the need to invest in expensive cryogenic storage and liquefaction systems or the risk of methane escaping during use.

Quadrise and Nouryon have jointly filed a patent in the UK relating to bioMSAR. Quadrise has successfully completed laboratory and pilot-scale test of the new fuel and is currently working with industry partners on larger-scale tests in both diesel engine and combustion applications. Provided that the larger-scale trials are successful, Quadrise could potentially start supplying bioMSAR in volume by the end of calendar 2021.

Share price performance



Business description

Quadrise Fuels International is the innovator, supplier and global licensor of disruptive residual oil technology that produces a synthetic, enhanced heavy fuel oil called MSAR. The technology enables refiners to produce MSAR for use as a low-cost substitute for heavy fuel oil.

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