

SHIFTING SANDS

BY ANTHONY FENSOM

Australia's silica sand mining industry is on a growth trajectory, with a takeover bid and a raft of new projects sparking investor interest in the critical mineral.

ON 16 FEBRUARY, Brisbane-based silica sands developer Diatreme Resources announced its 'conditional intention' to make a takeover bid for its neighbour Metallica Minerals.

The all-scrip bid would see Diatreme further expand its Far North Queensland silica sand resource base, centred on its Northern Silica project located near Cape Flattery.

Metallica's Cape Flattery silica sands project is located adjacent to the current Cape Flattery Silica Mines (CFSM) operation, owned by Japan's Mitsubishi and described as 'one of the world's largest silica sand mines in terms of reserve and production capacity'.

Metallica currently boasts a mineral resource of nearly 50 million tonnes, compared to Diatreme's more than 400-million-tonne estimated resource base.

Diatreme's Chairman, Wayne Swan, describes the offer as representing 'a compelling opportunity for the shareholders of both Metallica and Diatreme'.

He describes it as a 'logical step in ensuring the shareholders of both companies will see the benefits of a focused silica development company optimising resources, capital expenditures, staffing, regional engagement and export solutions'.

Diatreme's CEO, Neil McIntyre, says a successful takeover would create 'a leading ASX-listed silica company with a pro-forma market capitalisation of approximately \$110 million, and a significant combined mineral resource base.

'Diatreme has the financial capacity, technical expertise, industry partners and third-party stakeholder relationships required to advance the silica assets of the combined entity in the interest of all combined shareholders, with the aim of bringing the projects into timely production.'

Both Diatreme's and Metallica's projects have been designated a 'Co-ordinated Project' by the Queensland Government. In 2023, silica was listed among the state's 'critical minerals', with the government flagging a 'Critical Minerals Zone' based around Cape Flattery.

Sibelco, one of the world's leading materials solutions groups, has signalled its intention to accept Diatreme's offer in the absence of a superior proposal. The Belgium-based company is Diatreme's joint venture partner on its silica projects, and a major shareholder of both Diatreme and Metallica; however, Metallica advised its shareholders on 19 February to 'take no action' pending a formal response and recommendation from its board.

'The Metallica board anticipates that it will be a number of weeks before the offer can be made to Metallica shareholders,' it said.

The Brisbane-based company said it would 'engage with key stakeholders, including parties who have expressed interest in [its project], with a view to achieving the best outcome for Metallica shareholders'.

While the takeover battle is expected to take some months, it is likely to further focus attention on Cape Flattery, described as the 'Bowen Basin of silica sand', and its potential as a leading source of the key critical mineral used in solar panels, fibre optics and other glassmaking.

CFSM is currently responsible for around 30 per cent of the seaborne high-purity silica sand market, which, according to Metallica, expanded by around 40 per cent year-on-year in 2023.

Diatreme has reported that China is facing a bottleneck for the supply of low iron, photovoltaic-grade silica sand due to strong global demand. China's annual consumption of this material is seen rising from 23.4 million tonnes in 2023, to 31.6 million tonnes by 2025, amid a continuing solar photovoltaic boom.

The International Energy Agency has reported that the world added a historic 510 gigawatts of renewable power capacity in 2023, up 50 per cent from the prior year, with solar photovoltaic accounting for three-quarters of the total.

Global renewable capacity is expected to increase 2.5 times its 2023 level by 2030, with solar photovoltaic and wind accounting for 95 per cent – highlighting the increased demand for high-purity silica sand.



NEW PROJECTS ADVANCE

Meanwhile, a number of other emerging projects are set to expand Australia's silica sand resource base.

Perth-based Australian Silica Quartz Group has hard-rock quartz projects in both Queensland and Western Australia, ranging from metallurgical grade to high-purity silica. In December 2023, the company announced a maiden mineral resource of around 17 million tonnes at 99.04 per cent silicon dioxide for its Quartz Hill project, located 300 kilometres north-west of Townsville.

The company has commenced a scoping study aiming to supply silicon metal feedstock lump quartz to a proposed polysilicon manufacturing facility in Townsville.

Carbine Resources announced a resource upgrade for its Muchea West silica sand project in October 2023, amounting to 110 million tonnes at 99.65 per cent silicon dioxide. The company said the size and grade of the resource showed its potential to become 'a low impurity supplier of silica products to the burgeoning Asia-Pacific glass markets'.

Industrial Minerals reported drilling results in February 2024 for its Pippingarra quarry project, located near Port Hedland, with the company assessing its prospectivity for high-purity quartz. Offtake discussions are also progressing for its Stockyard high-purity silica sand project near Eneabba.

In March 2024, VRX Silica announced an updated bankable feasibility study for its Arrowsmith North silica sand project, located 270 kilometres north of Perth, with an estimated ungeared net present value of \$167 million based on 25 years of mining.

Arrowsmith North is leading development of the company's five silica sand projects in Western Australia, which include Muchea, located 50 kilometres north of Perth, and Boyatup, situated 100 kilometres east of Esperance.

Also in Western Australia, Perth-based Allup Silica has conducted 56 holes of drilling at its Pink Bark and Sparkler silica sand projects. It is also advancing its Cabbage Spot project, seen as having export potential via Wyndham Port.

The new projects and takeover activity suggests that Australia's silica sand industry will gain increased attention from investors and miners.

'Silica sand is critical to global decarbonisation, and Australia offers a strategically located and stable jurisdiction with high environmental standards and an expanding resource base,' says McIntyre.

And with global demand increasing, Australia's next wave of silica sand miners are ready to seize their moment in the spotlight. ⚡