Element 25 chasing the American dream

Trailblazing manganese producer Element 25 Ltd (E25) could reveal the precise location for its proposed US-based downstream sulphate plant as early as this month after securing a landmark offtake and project financing agreement with the world's fifth largest automaker Stellantis.

E25 has committed to supplying Amsterdam-headquartered Stellantis with up to 10,000 tpa of high purity manganese sulphate monohydrate (HPMSM) for its EV battery requirements over five years, with provisions to extend the length of the deal as well as increase the volume of product.

In return, Stellantis will part-fund development of E25's upcoming HPMSM processing facility in the US via a two-tranche $US30 million investment towards the final capex, contingent upon E25 securing $US200 million of project financing before June 30, along with the other conditions precedent.

The first commercial batch of HPMSM is expected to be delivered to Stellantis in January 2026.

Shortly before announcing the Stellantis deal – the emerging automaker's first with a listed manganese company – E25 postponed the release of the DFS on its HPMSM plant until later this quarter after confirming the proposed downstream facility would now be built in US and not Malaysia as originally slated.

"We're following a fairly aggressive timeline…but we've got a shortlist that we're going to bed down in the next few weeks and then we'll be able to announce exactly where that site is going to be," E25 managing director Justin Brown told **Paydirt** in mid-January.

"We're currently looking at sites in Louisiana, Texas, Alabama, generally those southern states which have some fantastic logistical advantages, but also established chemical industries and skilled workforces and the like to help support the project."

Brown added that the incentives for both mining companies and automakers to establish downstream battery plants in the US, as offered under the newly minted Inflation Reduction Act, were too good to ignore.

Stellantis was formed in 2021 on the basis of a 50/50 cross-border merger between Italian-American conglomerate Fiat Chrysler Automobiles and France's PSA Group, bringing together manufacturing facilities across 30 jurisdictions.

The emerging EV provider also signed a similar partnership with German lithium hopeful Vulcan Energy Resources Ltd last month, including provisions to source 50% of the capex funding requirements for the proposed Rüsselsheim manufacturing site.

Brown expects more OEMs to commit to offtake from E25's HPMSM plant as the company looks to finalise the remaining funding requirements.

"Most of the Tier-1 OEMs are fully committed to electrification of their fleets over the coming years and part of that equation is the need to secure those raw materials to build the batteries that go into their EVs," he said.

"In our view, manganese is only going to grow in importance because it's a lower cost battery material and a more abundant battery material available from countries like Australia where the geopolitical shift that is taking place is driving these groups to look at alternatives outside China and the other traditional suppliers for their battery raw materials.

"With E25 being an Australian company with an Australian manganese mine and a technology that has a big impact on reduction of waste and carbon emissions and the like, it fits nicely into their commercial ambitions and their ESG requirements as well."

Brown said the decision to delay the release of the DFS by several months was sensible given E25 needed to localise some of the estimates to reflect the pivot from a Malaysian base case to the new US site for the HPMSM plant. However, he did not expect it to have a major impact on the overall project timeline or add significant extra cost to estimated capex of around $US200 million.

"We constantly check back with the engineering and estimating teams and keep in touch with where that number is," he said. "At the moment we're happy with that estimate but obviously that'll get refined as the feasibility study comes to a close and we'll be able to put out a more formal number in due course."

The interest in manganese from OEMs such as Stellantis has surged to new heights over the past six months or so, with Brown not anticipating that demand to pull back any time soon.

"Manganese, as a cathode material, has really grown in importance over the last year or so because people now see manganese as a way of generating the volume of cathode materials they need to put the

Concentrate from Element 25's Butcherbird operations in the Pilbara will be refined into high purity manganese sulphate monohydrate at an upcoming US-based downstream site and supplied to leading automaker Stellantis from early 2026

electrons in these cars," he said.

"You're going to see more and more capital flowing into both exploration but also development of conversion capacity, like what E25 is doing with our first plant in the US. We're certainly enjoying some good first-mover advantage because we've already sunk about five years of effort into the development of our flowsheet and our resource at Butcherbird.

"I'd like to think we're at the front of that pack and we're going to try and maintain our position there."

Mining and concentrate production at the Pilbara-based Butcherbird project has been ongoing for the past 18 months. Brown said the orebody continued to perform to expectations and saw no reason why the mine wouldn't remain in operation for decades.

"We basically mine what's effectively a lateritic orebody, we wash the clays out and then we beneficiate the balance to remove any remaining waste shales and we get a concentrate in the 30-35% grade band," he said.

"The impurity levels and the behaviour of the product in the smelters in Malaysia, where it's currently being consumed, have met expectations. Demand is solid for the product and we think the orebody is going to continue to deliver in that vein. We have no concerns there at all."

– Michael Washbourne

Current product supply from Butcherbird, about 130km south of Newman, continues to meet the expectations of smelters in Malaysia