

## E25 PROGRESSES USA HPMSM REFINERY PLANS

Element 25 Limited (E25 or Company) (ASX: E25; OTCQX: ELMTF) is pleased to provide an update in relation to its planned construction of a high-purity manganese sulphate (HPMSM) refinery in Louisiana USA to supply domestic HPMSM to the US electric vehicle battery industry.

**Element 25 Managing Director Justin Brown said:** “E25 aims to be a leading source of high quality, vertically integrated, traceable and ESG and IRA-compliant battery material to the global electric vehicle industry. Construction of our HPMSM facility in the USA – the first of its kind there – is a key pillar to the strategic plan which aims to position E25 as the industry leading provider of high quality ethically sourced battery-grade manganese to support global electrification efforts.

### Engineering Development

Basic engineering packages for specific sections of the plant are being generated by equipment vendors. Design development of the balance of the processing facility is progressing. The project engineers have developed an initial project execution plan, procurement plan and other foundational elements, which are being reviewed. Project controls are being developed to manage cost and schedule.

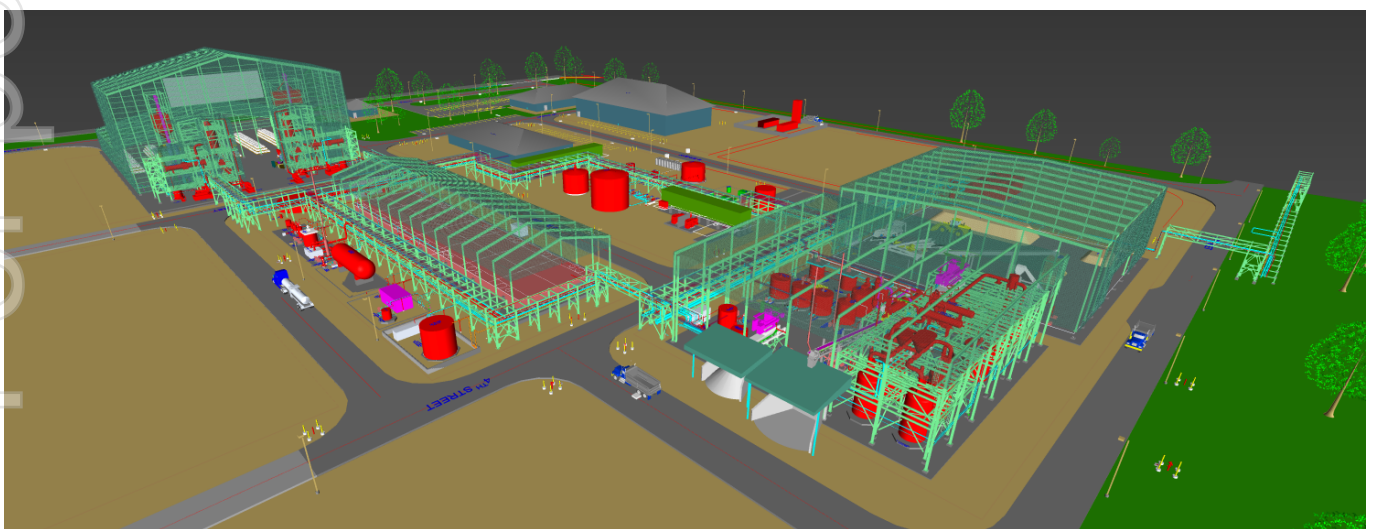


Figure 1. 3D engineering model development for Louisiana HPMSM refinery.

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## Schedule

The project schedule has been developed, incorporating all facets of the project, including engineering, permitting, project financing and construction. Commencement of construction and commissioning are under review pending the execution of binding terms on the project site, in addition to the conclusion of project financing activities and a Final Investment Decision by E25's Board of Directors to commence construction (**FID**).

The current schedule development provides for approximately 80 weeks of project build time based on the current critical path, however is being reviewed with the aim of compressing construction timelines.

The current timeline assumes no material interruptions to project development once construction commences due to procurement, procurement delays or weather-related disruptions.

## Project Site Selection

Discussions continue with the owners of the preferred project site with the intention of combining land, sulphuric acid and ancillary services into the commercial terms. The principal reagent required by the Element 25 HPMSM process is sulphuric acid, and securing reliable supply at competitive commercial terms is an important aspect of the site selection process. Other considerations include inbound and outbound logistics and site permitting requirements. Site-specific engineering activities are currently paused pending finalisation of these commercial agreements.

## Permitting

### Air Permit

The air permit is a key requirement to commence facility construction. Any source, including a temporary source, which emits or has the potential to emit any air contaminant (defined as particulate matter, dust, fumes, gas, mist, smoke, or vapour, or any combination thereof produced by the process(es) other than natural) requires an air permit. As part of the permitting process, Element 25 has completed a detailed assessment of expected emissions from the HPMSM refinery and provided this information along with supporting documentation to the Louisiana Department of Environmental Quality (**LDEQ**).

A draft permit has been issued, and comments have been provided to the regulator. The final stage of the permitting process is a public meeting, currently scheduled to be held on 18 April 2024 to be held in the local community centre close to the proposed project site.

The LDEQ Office of Environmental Services will conduct a public hearing in order to receive comments on the proposed Initial Part 70 Air Operating Permit and the associated Environmental Assessment Statement (EAS) for Element 25 (Louisiana) LLC, being the operator of the site. It is anticipated that the final permit will be issued during May 2024 at the conclusion of this process.

### Nationwide Permit 39

Prior to the commencement of construction, the project site also requires the US Army Corps of Engineers (**USACE**) to issue a Nationwide Permit 39, which allows minor impacts of wetlands/waters for industrial developments. The application for this

permit was submitted to USACE in November 2023 and the permit is anticipated to be issued in a similar timeframe to the project's air permit.

## Logistics

The logistics and marketing team has commenced commercial discussions with Associated Terminals, the leading stevedore and terminal operator on the Lower Mississippi River. Operations including midstream bouys along the river, a barge terminal at Port Allen, a location on the Michoud Canal, Port of South Louisiana's Globalplex Intermodal Terminal and the Port of St. Bernard. Associated Terminals handles between 25 million and 30 million tons of bulk and project cargoes per year. Associated Terminals operate the Port of South Louisiana (POSL) including existing bulk cargo handling facilities.

Commercial negotiations with Associated Terminals cover a range of potential services, including the provision of manganese ore handling services with respect to inbound manganese ore. Associated Terminals also has existing facilities that are available to store material as an intermediate staging point prior to transport to the planned HPMSM refinery to meet HPMSM production requirements. This approach may be useful for minimise the requirement for storage facilities at the refinery site and provide flexibility with respect to ore shipments. The parties are working to agree competitive commercial terms for the provision of these services.

Specification and design of reagent offloading facilities have been coordinated with targeted suppliers. All reagents other than sulphuric acid are expected to be transported to site via truck from local suppliers within the Baton Rouge area.

## Project Financing

### Offtake and Funding Agreements

As previously announced, the Company has binding agreements in place with General Motors LLC and Stellantis N.V., respectively, which provide for combined offtake and funding arrangements<sup>1</sup>.

Both agreements remain on foot, and E25 has achieved all current milestones in relation to the Stellantis agreements on schedule. Two milestones with respect to the GM agreements, which relate to the signing of the site lease and the delivery of a final project budget and plan are being revisited, with revised dates under discussion based on the current level of project development. It is anticipated that these dates will be adjusted as a result of the discussions.

The two transactions provide a total of US\$115M in financing support for the Louisiana HPMSM project and the Company is running a process to secure funding for the balance of total construction costs. Jett Capital Advisors is assisting the Company during the financing process.

In the course of the financing process, the Company has explored funding options including:

- Bank debt via a range of tier-one lenders;
- Joint venture development of the project and or project-level equity investment;

<sup>1</sup> Reference: Company Releases dated 9 January 2023 and 26 June 2023.

- Royalty and streaming arrangements; and
- Government sponsored funding via loan or grant programmes.

Multiple potential financiers have conducted due diligence including the detailed review of financial and technical information relating to the project and one group has undertaken a site visit to Louisiana as part of their process. During this process the Company has received a number of term sheets and proposals which are currently being reviewed in conjunction with the Company's advisors. Further detailed commentary on the government funding programmes is provided below.

### Department of Energy

The US Government's Advanced Technology Vehicles Manufacturing Loan Program (**ATVM**) provides loans to support the manufacture of eligible advanced technology vehicles and qualifying components from the Bipartisan Infrastructure Law. Through the ATVM program, the Department of Energy Loan Programs Office (**LPO**) can support the manufacturing of qualifying components for eligible vehicles. These projects can be along the automotive value chain after material has been mined, such as manufacturing of battery cell components, battery cells, battery modules, and battery packs for EVs or manufacturing of EV charging infrastructure components<sup>2</sup>.

LPO supports projects to onshore and re-shore the production of the critical materials including projects that process critical minerals using innovative technology for end use in a variety of eligible clean energy technologies, or for projects that manufacture eligible advanced technology vehicles or their components.

Element 25 (Louisiana) LLC has applied for funding under the ATVM programme and is currently in the intake process. If the project passes through the current stage, the application will move to due diligence. More information on the ATVM application process can be found here: <https://www.energy.gov/lpo/application-process>.

### MESC Grant Application

In January 2024, the project financing team prepared and submitted a concept paper as the first stage of assessment for project funding under Funding Opportunity Announcement Number DE-FOA-0003099, Bipartisan Infrastructure Law: Battery Materials Processing and Battery Manufacturing Grants. The grant programme has funding of US\$3B over 5 years<sup>3</sup>.

Under the application process the Company subsequently received a letter of encouragement to proceed with a full application. The full application is currently being prepared and will be submitted as the next stage in this process. Receiving a letter of encouragement is not a guarantee that an application will be selected for negotiations leading to award.

The deadline for submission of the full grant application is 19 March 2024 and the Company will keep the market informed of any material developments as the application proceeds through the evaluation process.

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<sup>2</sup> <https://www.energy.gov/lpo/advanced-transportation-financing>

<sup>3</sup> <https://www.energy.gov/mesc/battery-materials-processing-grants>

## Government Incentives

As previously advised the Company has received a substantial incentive package from the Louisiana State Government which was previously announced to the market<sup>4</sup>. The total value of the incentives package is estimated at approximately US\$57M.

The Element 25 HPMSM project is also eligible for the Inflation Reduction Act 45(X) production tax credit for domestic manufacturing of critical minerals<sup>5</sup>. The credit comprises a 10% credit on eligible operating costs relating to the production of the HPMSM at the E25 facility.

## About the E25 Process

Element 25 has developed an innovative, advanced processing flowsheet to convert Butcherbird manganese concentrate into high purity manganese sulfate monohydrate (**HPMSM**), a critical raw material for the manufacture of lithium-ion batteries. The proprietary flowsheet reduces energy consumption, virtually eliminates waste and delivers the lowest carbon intensity HPMSM globally based on publicly available information<sup>6</sup>.

The process offers a pathway to the delivery of expanding volumes of ethically sources, traceable, transparent HPMSM supply to US markets. Element 25 is developing a first of its kind processing facility in Louisiana to produce up to 135Kt per annum of HPMSM for US electric vehicle (**EV**) supply chains<sup>7</sup>.

## ABOUT ELEMENT 25

Element 25 is an ASX-listed company (**ASX: E25**) that operates the world-class 100%-owned Butcherbird Manganese Project in Western Australia and is currently undertaking activities to expand production to approximately 1.1Mtpa of medium-grade high silica manganese ore for use in traditional and new energy markets.

E25 is also commercialising innovative proprietary technology to produce battery-grade high-purity manganese sulphate monohydrate (**HPMSM**) for use in Electric Vehicle (**EV**) battery manufacturing. The Company is building its first HPMSM refinery in Louisiana USA to produce raw materials for the US EV market, in partnership with General Motors LLC (**GM**) and Stellantis N.V. (**Stellantis**). E25 aims to become an industry leading, world class, low-carbon battery materials manufacturer.

Company information, ASX announcements, investor presentations, corporate videos, and other investor material in the Company's projects can be viewed at: [www.element25.com.au](http://www.element25.com.au).

This announcement is authorised for market release by Element 25 Limited's Board of Directors.

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<sup>4</sup> Reference: Company ASX release dated 19 December 2023.

<sup>5</sup> <https://www.whitehouse.gov/cleanenergy/clean-energy-tax-provisions/>

<sup>6</sup> Reference: Company ASX Release dated 21 February 2023

<sup>7</sup> Reference: Company ASX Release dated 12 April 2023