# Early cashflow rapid expansion...

ASX ANNOUNCEMENT 4 NOVEMBER 2021

## Element 25 Achieves Substantial Cost Mitigation via Revised Shipping Strategy

- COVID related shipping congestion has resulted in a sharp spike in global shipping costs which have significantly impacted on gross margins for the first two manganese shipments.
- In response to the elevated shipping charges for Handymax size vessels in particular, E25 announced in September 2021 a transition to Supramax vessels[1].
- The revised strategy has successfully resulted in a tariff reduction for the third concentrate shipment of approximately 45% from peak rates to date.
- The reduction in freight rate charges equates to an effective increased realised FOB price of approximately USD$0.75/dmtu.
- The Baltic Dry Index, a proxy for global shipping tariffs has begun to normalise, although it remains elevated above PFS assumptions[2] (see Figure 1).


Element 25 Limited (**E25** or **Company**) (**ASX:E25**) is pleased to confirm the next shipment of manganese concentrate has been scheduled to depart the Utah Point facility at Port Hedland on approximately 27 November 2021. This is the third cargo to be shipped from the Company's 100%-owned world class Butcherbird Manganese Project (**Project**) located in the Pilbara region of Western Australia. The ore will be delivered to the Company's offtake partner OM Materials (S) Pte Ltd (**OMS**), a wholly owned subsidiary of ASX listed company OM Holdings Limited (**ASX:OMH**) (**OMH**)[3].

In line with the Company's revised shipping strategy, the shipment will utilise a Supramax vessel[1] with a nominal cargo size of 47Kt of manganese concentrate. The contract provides for additional material to be included above this level at a reduced tariff if the laycan permits. The ship has been booked at a rate in the low USD$30's per tonne, a reduction of approximately 45% from the previous peak tariff.

[1] Reference: Company ASX release dated 1 September 2021
[2] Reference: Company ASX release dated 4 December 2020
[3] Reference: Company ASX release dated 28 January 2021

## COMPANY SNAPSHOT

| Market Summary | |
|---|---|
| ASX code: | E25 |
| Shares on issue: | 149M |
| Share price: | $1.465 |

| Board of Directors: | |
|---|---|
| Seamus Cornelius | Chairman |
| Justin Brown | MD |
| John Ribbons | NED |

Element 25 Limited is developing the world class Butcherbird Manganese Project in Western Australia to produce high quality manganese concentrate and high purity manganese products for traditional and new energy markets.

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COVID related congestion has had a significant impact on global shipping tariffs in 2021, resulting in increased freight costs which directly impacted on the gross margins for the first and second shipments of manganese concentrate from the Project.

Figure 1: Baltic Dry Index. Reference https://tradingeconomics.com

The Baltic Dry Index is a proxy for global shipping costs and has been at historically record high levels in 2021 (see Figure 1), reflecting these higher shipping tariffs experienced through the affected period. Timing for the first two shipments from the Project coincided with these elevated levels, which resulted in higher cost of sales, impacting profitability from operations as detailed in the September 2021 Quarterly Report.[4]

The Baltic Dry Index has begun to normalise, and the Company expects this trend to continue in coming months, although this recovery will be subject to the ongoing reduction in COVID related restrictions which is anticipated to result in the freeing up of capacity in the global shipping fleet.

Whilst this is an important cost rationalisation exercise, shipping costs remain one of the key sensitivities in relation to costs and margins going forward until these macro-economic conditions ease over a sustained period.

The Company is in constant discussion with its shipping brokers and offtake partner to explore strategies to manage and optimise freight costs throughout the business.

## Project team focus

E25's Operations team continues to focus on delivering nameplate production and is anticipates achieving nameplate production by Q1 2022.

The Business Development team is focussing on the next stages of the multi-stage development strategy, including a Stage 2 expansion of the concentrate business followed by a Stage 3 development to convert the concentrate material into HPMS for electric vehicle EV batteries to power the global transition away from fossil fuel powered mobility.

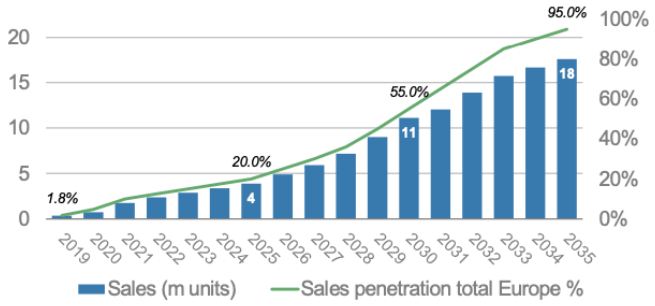
[4] Reference: Company ASX release dated 29 October 2021.

**Manganese is emerging as an increasingly important ingredient** for EV batteries, with potential supply constraints for nickel and cobalt forcing battery manufacturers to look to high manganese cathodes to produce the vast amount of cathode material required by the EV industry in coming years[5].

The Project is ideally placed to feed this potential demand, with **advanced flowsheet development** work undertaken in 2019 and 2020 confirming a simple leach process for E25 ores which, when combined with offsets, will target the world's first **Zero Carbon Manganese** for EV cathode manufacture[6]. The Company anticipates releasing a Scoping Study in Q4 2021 prior to the release of the PFS in H1 2022.

## Battery EV Penetration Rate Forecast to Increase Further

As battery electric vehicle (BEV) makers seek to increase the uptake of electric vehicles, one commercial driver is cost reduction. VW's Power Day suggested a 50% cost reduction for batteries with cell design (-15%), production process (-10%), **cathode/anode materials (-20%)** and battery systems (-5%) driving the change. Global BEV penetration is expected to rise to 15.2% by 2025 and 39.5% in 2030 – led by Europe and China, according to Morgan Stanley's latest report[7]. The main driver in the cathode materials is a shift to a high manganese cathode material for the volume production, which is expected to underpin strong demand growth for battery-grade manganese sulphate. Current estimates put demand by 2030 at 13 times current supply and a deficit of 1.3Mt even factoring in planned supply increases[8]




Source: ACEA, Morgan Stanley Research estimates

Table 1. Europe BEV sales volumes (m) and penetration (%)

[5] https://thenextavenue.com/2021/01/22/svolt-opens-orders-for-its-nmx-nickel-manganese-batteries/
[6] Reference: Company ASX release dated 12 February 2019.
[7] Morgan Stanley Research published 3 September 2021
[8] Euromanganese company presentation dated September 2011

## About the Butcherbird Manganese Project

E25's Butcherbird Manganese Project is a world-class manganese resource with current JORC resources of more than 263Mt of manganese ore[9]. In May 2020, the Company completed a Pre-Feasibility Study (PFS)[10] with respect to developing the deposit to produce manganese concentrate for export to generate early cashflow with a modest capital requirement[11]. Stage 1 of the Project development plan is complete and E25 has commenced shipping ore to offtake partners.

The PFS also highlighted the Project's potential for significant growth beyond the initial Stage 1 production volumes (the studies examined the potential for a 2X and 3X expansion to Stage 1 within 12 months of initial commissioning), and the Company expects to expedite the expansion of the Project in 2H FY2022.

In addition to the concentrate export business, the Company has completed extensive research & development and laboratory test work into the production of high purity manganese products including battery grade manganese sulphate (HPMSM) and High Purity Electrolytic Manganese Metal (HPEMM). The work has highlighted that the Butcherbird ores are highly amenable to an ambient temperature, atmospheric pressure leach process, resulting in a very efficient extraction of the manganese into solution, the key requirement for the cost effective and sustainable production of HPMSM and HPEMM.

The Project straddles the Great Northern Highway and the Goldfields Gas Pipeline, providing turnkey logistics and energy solutions. The Company plans to integrate renewable energy into the power solution over time to target a zero-carbon footprint for the Project, which is expected to also reduce energy costs. A cleaner, lower carbon flowsheet and high penetration renewable energy will place Butcherbird at the forefront of sustainable high purity manganese production.

### Mineral Resources

| Category | Tonnes (Mt) | Mn (%) | Si (%) | Fe (%) | Al (%) |
|---|---|---|---|---|---|
| Measured | 16 | 11.6 | 20.6 | 11.7 | 5.7 |
| Indicated | 41 | 10.0 | 20.9 | 11.0 | 5.8 |
| Inferred | 206 | 9.8 | 20.8 | 11.4 | 5.9 |
| **Total** | **263** | **10.0** | **20.8** | **11.4** | **5.9** |

Notes:
- Reported at a 7% Mn cut-off for the Measured and Indicated categories and an 8% Mn cut-off for the Inferred categories.
- All figures rounded to reflect the appropriate level of confidence (apparent differences may occur due to rounding)

[9] Reference: Company ASX release dated 17 April 2019.
[10] Reference: Company ASX release dated 19 may 2020.
[11] Reference: Company ASX release dated 3 December 2020

## Mining Reserve

Based on the results of the Pre-Feasibility Study completed in May 2020, E25 has published a Maiden Ore Reserve for the Project of 50.55Mt in the Proved and Probable categories[12].

| Classification | Tonnes (Mt) | Grade (Mn%) | Contained Mn (Mt) | Recovered Mn (Mt) |
|---|---|---|---|---|
| Proved | 14.4 | 11.5 | 1.65 | 1.35 |
| Probable | 36.2 | 9.8 | 3.56 | 2.92 |
| Total | 50.6 | 10.3 | 5.21 | 4.27 |

Justin Brown

Managing Director

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

## Competent Persons Statement

The company confirms that in the case of estimates of Mineral Resource or Ore Reserves, all material assumptions and technical parameters underpinning the estimates in the market announcements dated 17 April 2019 and 19 May 2020 continue to apply and have not materially changed. The company confirms that the form and context in which the competent person's findings are presented has not been materially modified from the original market announcements.

The information in this report that relates to Exploration Results and Exploration Targets is based on information compiled by Mr Justin Brown who is a member of the Australasian Institute of Mining and Metallurgy. At the time that the Exploration Results and Exploration Targets were compiled, Mr Brown was an employee of Element 25 Limited. Mr Brown is a geologist and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Brown consents to the inclusion of this information in the form and context in which it appears in this report.

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

[12] Reference: Element 25 Limited Reserve Statement lodged with ASX 19 May 2020.