



NUCLEAR VISION LTD.

WEEKLY BATTERY METALS INTELLIGENCE

# The Manganese Signal

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THIS WEEK'S NUMBER

## ~\$2,500/t DDP Europe

### European-delivered HPMSM holds near incentive price as China ex-works hits June 2022 highs

The headline number that matters for Western battery supply chains is not the China ex-works benchmark — it is the delivered price into Europe, where HPMSM currently commands approximately \$2,500/t DDP. That figure reflects the true cost of securing battery-grade manganese sulphate outside China: the SMM index (~\$850/t ex-works), plus ~\$200/t ocean freight, a ~25% intermediary premium, and a ~\$200/t “European supply” premium for non-Chinese material with traceable ESG credentials.

Underneath that European price, the China benchmark continues to surge. Fastmarkets' March BRM update confirmed ex-works mainland China prices reached 5,900–6,200 CNY/t — the highest since June 2022. The SMM index on April 13 shows prices holding at these elevated levels even as the Hormuz ceasefire introduces uncertainty into freight markets. Every yuan of increase in China ripples through the premium stack into landed Western prices. For a market that most analysts expected to soften after Lunar New Year, the persistence of this rally is the signal.

MACRO LENS

# Ceasefire, dual blockades, and the freight stack: why the Hormuz crisis is far from over

On April 8, the U.S. and Iran agreed to a two-week ceasefire mediated by Pakistan. The Strait of Hormuz was supposed to reopen. It has not. As of April 14, over 600 ships — including 325 tankers — remain trapped in the Persian Gulf. Only 5–15 vessels per day are transiting, down from 120–140 pre-war. On April 12, two supertankers made U-turns at Iran's Larak Island checkpoint as peace talks in Islamabad broke down. The UAE's ADNOC CEO was blunt: "The Strait of Hormuz is not open. Access is limited, conditional, and controlled."

The situation has escalated further. On April 13, the U.S. imposed its own naval blockade on all Iranian ports, creating a "double blockade" scenario. Iran demands transit tolls and vessel inspections; the U.S. demands unconditional freedom of navigation. Hapag-Lloyd reports "no noticeable change" in operating conditions and maintains a booking embargo for the entire Persian Gulf. The Baltic Dry Index rose to 2,250 on April 13 — up 72.8% year-on-year — reflecting the cascading freight disruption across all vessel classes.

For manganese, the logistics impact runs through three channels:

## 1. Freight costs are spiking across the board

Cape of Good Hope rerouting continues to add 10–14 days to global shipping cycles. Dry bulk freight from Guinea to China is at \$26–27/dmt, up from \$24/dmt pre-war. Container rates on Asia-to-Europe routes are up ~20%, transpacific rates have surged ~40%. Hapag-Lloyd has imposed \$1,500/TEU war-risk surcharges on all Persian Gulf cargo and maintains a full booking embargo for the region. The capesize index hit 3,318 points on April 10 — its highest since early March — while the panamax index rose to 1,855. Oil is back above \$97/barrel and climbing.

## 2. India's manganese alloy exports have effectively stopped

India typically supplies 500,000–600,000 tonnes of manganese alloys annually to the Middle East. Argus Media reported on March 5 that monthly flows of 40,000–50,000 tonnes have been completely stalled for weeks. Imported manganese ore costs into India have doubled on some routes (\$50–60 to \$100–125 per container), with other routes approaching \$1,000 per container.

Container rates that previously ranged \$1,000–1,600 could hit \$4,000 if the conflict continues.

### 3. The sulphuric acid cost squeeze deepens

The Persian Gulf supplies approximately 45% of global seaborne sulphur shipments. With Hormuz effectively closed to commercial traffic, sulphur flows from the region have been disrupted. Sulphuric acid is the single largest variable cost in HPMSM production. Chinese producers were already facing elevated acid costs before the conflict — the Hormuz closure adds another structural cost layer that directly feeds into manganese sulphate pricing.

***Let me be clear — the Strait of Hormuz is not open. Access is limited, conditional, and controlled. Iran has made it clear through its statements and actions that passage is subject to permission, conditions, and political influence. This does not constitute freedom of navigation; it amounts to coercion.***

— Sultan Ahmed Al Jaber, CEO of ADNOC (UAE), April 10, 2026

### What this means for HPMSM pricing

The \$2,500/t DDP Europe price for HPMSM already included ~\$200/t for ocean freight. That component is now structurally higher and more volatile. Every \$5/dmt increase in bulk freight from South Africa or Gabon to China ripples through the ore cost base, up through sulphate processing, and into the final delivered price. Meanwhile, Gabon — the world's second-largest manganese ore exporter — has confirmed its 2029 ban on raw ore exports will proceed as planned, adding a medium-term supply cliff to the near-term logistics disruption.

The battery metals complex is splitting along geopolitical lines. Lithium carbonate in China rose past 160,000 CNY/t in early April, driven partly by Zimbabwe's raw mineral export suspension. Nickel sulphate weakened modestly on oversupply from Indonesian HPAL. Manganese sulphate is being squeezed from both sides: cost-push from sulphur and freight, demand-pull

from LMFP adoption. This is not a general battery-metals beta trade. It is a supply-chain repricing event.

## MARKET DASHBOARD

# What moved this week

METRIC	THIS WEEK	WOW CHANGE	SOURCE
<b>HPMSM (ex-works China, CNY/t)</b> Battery-grade, 32% Mn min	<b>5,900– 6,200</b>	<b>+5.79 USD/t</b>	Fastmarkets MB-MN-0008 / SMM, Apr 13
<b>HPMSM (ex-works China, USD/t)</b> 13% VAT deducted, at prevailing CNY/USD	<b>~\$850</b>	<b>+1.4%</b>	Calculated, Apr 13
<b>HPMSM (CIF ARA Ports, USD/t)</b> Chinese-origin, landed Europe	<b>~\$1,400</b>	<b>+1.2%</b>	SC Insights / Giyani est., Apr 14
<b>HPMSM (DDP Europe, USD/t)</b> European-produced, non-Chinese supply	<b>~\$2,500</b>	<b>Firm</b>	SC Insights / Market Eye, Apr 14
<b>Mn ore, S.A. 37% (CIF Tianjin, \$/dmtu)</b> Semi-carbonate lump	<b>~\$4.20</b>	<b>Flat</b>	Mysteel / Asian Metal, Apr 13
<b>EMM 99.7% (FOB China, USD/t)</b> Electrolytic manganese metal	<b>\$2,640– 2,670</b>	<b>+0.4%</b>	SMM / FerroAlloyNet, Apr 12
<b>Li carbonate (CIF CJK, USD/kg)</b> 99.5% Li <sub>2</sub> CO <sub>3</sub> min, battery grade	<b>~\$20.80</b>	<b>+2.9%</b>	Trading Economics, Apr 14

*All prices are indicative, sourced from named third-party price reporting agencies for informational context only. Prices do not represent quotes, offers, or prices achievable by Nuclear Vision Limited or any other party. Readers should consult primary PRA sources for trading or procurement decisions. HPMSM ex-works China pricing assessed weekly by Fastmarkets (Thursdays); SMM index updated daily. European HPMSM pricing estimates based on SC Insights and Giyani Metals Corp. analysis of landed cost build-up. EMM pricing reflects latest available public assessment.*

**Why two HPMSM prices?** The China ex-works price (~\$850/t) is the global benchmark, but it is not what European or North American buyers actually pay. Chinese-origin material landed CIF at ARA ports costs ~\$1,400/t after freight and intermediary premiums. European-produced HPMSM — with traceable supply chains and ESG credentials required under the EU Battery Regulation — currently commands ~\$2,500/t DDP. That \$1,650/t gap between China ex-works and European-delivered is the incentive price for new non-Chinese supply. To justify greenfield HPMSM projects outside China, prices near or above \$2,500/t are required.

The key read from this table: manganese products are firm across the board — sulphate, ore, and metal — while lithium has surged to 161,500 CNY/t (up 125% YoY). That consistency across the manganese value chain reinforces the structural tightness narrative. When ore, intermediates, and processed products all hold or rise simultaneously, it signals genuine supply-side pressure, not downstream speculation.

## DEEP DIVE

# Why HPMSM is defying the seasonal playbook

In a normal year, Chinese HPMSM prices soften after Lunar New Year as manufacturers draw down inventory and battery production eases. That did not happen in 2026.

Fastmarkets' Rob Searle put it directly in the March BRM update: "Manganese sulfate prices rose to levels not seen since June 2022." Three forces explain the anomaly:

## 1. Sulphuric acid costs refuse to ease

Sulphuric acid is the single largest variable cost in HPMSM production. The sulphur supply-demand balance has not improved, maintenance shutdowns have been slow to restart, and environmental compliance costs in China continue to rise. This is not a temporary squeeze — it is structural cost inflation baked into every tonne of manganese sulphate produced.

## 2. Export tax rebate changes pulled demand forward

Changes to Chinese export tax rebates for cathode materials and lithium-ion batteries drove a significant front-loading of procurement into Q1 2026. Battery-grade manganese demand stayed strong through January and February, precisely when it normally fades. The result: producers entered April with thinner-than-expected inventory.

## 3. LMFP adoption is no longer a future story

Lithium manganese iron phosphate (LMFP) cathode chemistry has moved from pilot lines to commercial reality. CATL, the world's largest battery maker, is ramping LMFP production across its Gen 5 LFP platform, while precursor demand from pCAM producers has kept HPMSM offtake elevated through a period that historically sees reduced orders.

*The HPMSM market in 2026 will see three major positive factors — demand growth, stable supply control, and high costs — resonating together. Prices will remain in a high range.*

— Shanghai Metals Market, December 2025 outlook

### ACROSS THE HPMSM LANDSCAPE

## Five stories shaping the manganese supply chain

### Euro Manganese faces June 30 financing deadline for Chvaletice

Euro Manganese (TSXV: EMN) is racing to meet milestones tied to its Orion financing package by end-Q2 2026. The Chvaletice project in the Czech Republic — Europe's only near-term source of high-purity manganese — is running demonstration plant optimization to lower commercial-phase costs. The Czech government has classified

the deposit as a strategic mineral resource, but Reuters reported in January that the project has hit permitting delays. The outcome of this financing deadline will shape the timeline for the EU's sole domestic HPMSM supply.

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### **Element 25 raises \$18M for Butcherbird expansion despite war-weary markets**

Element 25 (ASX: E25) closed an \$18 million placement on April 13 at A\$0.30/share to fund Butcherbird mine expansion to 1.1 Mtpa — a notable vote of confidence in a volatile market. The A\$64.8M expansion (pre-tax NPV A\$561M, 96% IRR) is backed by a A\$50M NAIF debt facility and fully approved under WA regulation. Butcherbird concentrate will feed Element 25's planned HPMSM facility in Louisiana, backed by a US\$166M DOE grant with offtake from General Motors and Stellantis. Managing Director Justin Brown: "We are pleased with the support, particularly in light of the challenging market backdrop."

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### **South32 posts 16.7% jump in Q2 manganese output**

The world's largest manganese producer reported 1.3 million wmt of production in the December quarter, with its Australian operations up 26% YoY following the Tropical Cyclone Megan recovery. The Hermosa project in Arizona — the only advanced battery-grade manganese deposit in the US — continues shaft sinking and process plant foundation work. South32 is the single largest variable in global manganese ore supply balance.

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### **Giyani Metals produces HPMSM at demonstration plant**

Giyani (TSX-V: EMM) achieved first HPMSM production at its Johannesburg demo plant in September 2025 and is now shipping material to potential offtake partners for qualification. The K.Hill project DFS in Botswana was targeted for end-Q1 2026. Phase 1 qualification with US battery firm C4V showed performance "remarkably consistent" with baseline cathode material. Giyani's dual HPMSM/HPMO product capability positions it across multiple cathode chemistries.

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### **CATL-Stellantis Zaragoza gigafactory under construction, on track for end-2026 SOP**

The €4.1 billion Contemporary Star Energy JV broke ground in Figueruelas, Aragon in November 2025 and is on track for production start by end of 2026, targeting 50 GWh of LFP batteries. Approximately 2,000 Chinese technical staff are already on-site. CATL's Debrecen, Hungary plant (100 GWh) has begun production in early 2026. Spain's Industry Minister called the JV a "strategic milestone" — it received €300M in EU funding. Each GWh of LMFP capacity added in Europe creates incremental demand

for battery-grade manganese sulphate that does not currently exist in the domestic supply chain.

## THE EU BATTERY BELT

# Why Europe's 40% processing target changes the manganese math

The Critical Raw Materials Act requires that by 2030, at least 40% of the EU's annual consumption of each strategic raw material is processed domestically. Battery-grade manganese is explicitly listed as strategic. Today, 0% of the EU's HPMSM is processed inside the bloc. Every gram comes from China.

The European Court of Auditors released a special report in April 2026 assessing CRMA implementation. The findings are sobering: targets "lack justification," underlying data is "not robust," and "bottlenecks hamper progress in domestic production." Lengthy and complex permitting remains the primary obstacle, with exploration activities described as "underdeveloped and risky."

**The arithmetic problem:** If Europe's EV battery sector requires even modest volumes of HPMSM by 2030, and permitting for domestic projects takes 5–7 years from application to production, the window for projects to reach commercial operation before the 2030 benchmark is nearly closed. Every month of delay makes the 40% target less achievable — and makes any project with an advanced pathway more strategically valuable.

Meanwhile, the demand side is not waiting. Construction of the Gotion-InoBat gigafactory in Surany, Slovakia began in August 2025, targeting 20 GWh initial capacity with pilot production in early 2026 and full SOP in January 2027. CATL's Debrecen facility adds 100 GWh. Northvolt's Swedish operations continue to expand. Each of these facilities needs cathode materials — and manganese-rich chemistries (LMFP, LNMO) are gaining share precisely because they reduce reliance on expensive nickel and cobalt.



**Batteries Reg. in force**

Aug 2023

**CRMA adopted**

Mar 2024

**We are here**

Apr 2026

**Battery Passport mandatory**

Feb 2027

**CRMA 40% processing target**

2030

The tension between accelerating demand and stalled supply is Europe's defining battery materials challenge. The \$2,500/t DDP price that European-produced HPMSM currently commands exists precisely because of this tension — it is the market's way of pricing in scarcity, traceability requirements, and the regulatory cost of dependence on Chinese supply. Projects that can demonstrate a credible path to EU-based, traceable HPMSM production sit at the intersection of policy urgency and commercial necessity. Nuclear Vision's Slovak manganese assets, situated within Central Europe's emerging battery manufacturing corridor and in proximity to the Gotion-InoBat gigafactory in Surany, represent exactly this type of strategically aligned optionality.

## FORWARD LOOK

### Three things to watch next week

- **Fastmarkets MB-MN-0008 assessment (Thursday April 17):** whether the 5,900–6,200 CNY/t range holds or breaks higher. A sustained move above 6,200 would mark the strongest HPMSM pricing in nearly four years and likely trigger re-forecasting across the midstream.
- **US-Iran ceasefire expiry (April 22):** the two-week ceasefire expires next week. Oman is pushing for extension, but US-Iran talks in Islamabad broke down on April 12. If the ceasefire lapses without renewal, expect freight rates and insurance premiums to spike immediately. The US naval mine-clearing operation in the Strait adds another variable — Iran has threatened to treat it as a ceasefire violation.
- **Element 25 Butcherbird construction contract (April):** E25 indicated a construction contract award for the Butcherbird expansion is expected this month. With the \$18M placement settled April 22 and NAIF debt in place, a

contract announcement would confirm one of the first new HPMSM supply chain investments to advance through the current geopolitical volatility.

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