



**ADVANCED**  
ENERGY MINERALS

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# Investor Presentation

March 2026

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# Today's Presenters



**Richard Seville**  
Executive Chairman



**Michael Adams**  
Managing Director and  
Chief Executive Officer

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# 1 Introduction

# Company Overview

Advanced Energy Minerals is a customer focussed, innovative producer of high and ultra-high purity alumina products serving attractive end-markets

## Overview

- ✓ AEM is a producer of high purity alumina (HPA) from a **2,000 tpa** capacity production facility in Cap-Chat, Quebec, Canada.
- ✓ Serving the **rapidly growing global demand** in industries such as advanced ceramics, semiconductors, thermal fillers, and synthetic sapphire manufacture
- ✓ **On track to deliver 3,000 tpa** capacity from mid 2026 with the addition of a dedicated 3N5 circuit with plans for a further expansion to 6,000tpa<sup>3</sup> capacity from 2029 (Stage 2 Expansion)
- ✓ At 3,000 tpa full production rate, the Plant will be the **3rd largest HPA production asset outside of China**<sup>1</sup>
- ✓ CM Group forecasts AEM to be in the **bottom half of the global HPA cost curve** while delivering a high-quality product – benefitting from renewable hydroelectricity at **<US5c/kWhr**
- ✓ Industry leading Scope 1, 2 and 3 carbon emissions HPA supplier contributing less than 2.8t CO2e per tonne of production (~77% lower than incumbent producers)<sup>2</sup>

## Key Metrics



**6,000 tpa<sup>3</sup>**

Nameplate Production



**100%**

Renewables Powered



**59**

Granted Patents



**~5,100 tpa**

Customer Pipeline



**15 Projects<sup>4</sup>**

Commercially Secured



**>160 Projects<sup>4</sup>**

In Qualification Trials

## Cap-Chat Plant Expansion Project Snapshot



Stage	Stage 1	Stage 2
Location	Cap-Chat, Canada	
Status	Production Ramp Up	Pre-Feasibility Study (Completed June 2025)
Nameplate HPA Production Capacity	3,000 tpa <sup>6</sup>	3,000 tpa
Current HPA Production Capacity (% nameplate)	<p>67%</p> <p>2,000</p>	N/A
Next Steps	<ul style="list-style-type: none"> <li>Dedicated 3N5 circuit delivering additional 1,000 tpa from mid 2026</li> </ul>	<ul style="list-style-type: none"> <li>Stage 2 Definitive Feasibility Study due for completion in mid 2026</li> </ul>
Production ramp up <sup>5</sup>	From mid 2026	From early 2029

Notes: (1) CM Group based on capacities of HPA producers in 2024. (2) Optel (independent audit of AEM production operations and supply chain (completed in September 2023, updated July 2025). (3) Following completion of both Stage 1 and Stage 2 of the Cap-Chat Plant. (4) Project: Customer's process to qualify and, if successful, then buy product for a specific application. (5) Current estimated project completion dates remain subject to change. (6) 2,000 tpa 4N+ and 1,000 tpa 3N5.

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## HPA Market Overview



# What is High Purity Alumina?

HPA is a specialised form of aluminium oxide that is a critical input for a range of commercial applications

## Specialised form of aluminium oxide...



- HPA is a specific form of aluminium oxide ( $Al_2O_3$ )
- White crystalline powder classified by purity, with 4N and 5N grades dominating high value end markets

Purity	Product Classification
99.9%	3N HPA
99.95%	3N5 HPA
99.99%	4N HPA
99.999%	5N HPA
99.9999%	6N HPA

**Achieving high purity involves complex processes**

## ...with a powerful blend of properties...

- ✓ High thermal conductivity and melting point
- ✓ Extreme hardness (just below diamond) and wear resistance, high mechanical strength
- ✓ Bio-inert and chemically stable
- ✓ Excellent electrical insulation and transparent to microwave frequencies

**Many properties are enhanced by purity of HPA**

## ..suitable for use in attractive end-markets



**Synthetic Sapphire**



**Electronics and Semiconductors**



**Batteries**



**Other and Emerging Applications**

**Performance of HPA in these applications is linked to grade, quality and physical attributes**

Source: CM Group 2025, Advanced Energy Minerals.

# Global Demand in HPA End-Markets

HPA is leveraged in high-growth, premium end-markets with robust demand fundamentals



## Synthetic Sapphire



## Electronics and Semiconductors



## Batteries



## Other and Emerging Applications

### Applications

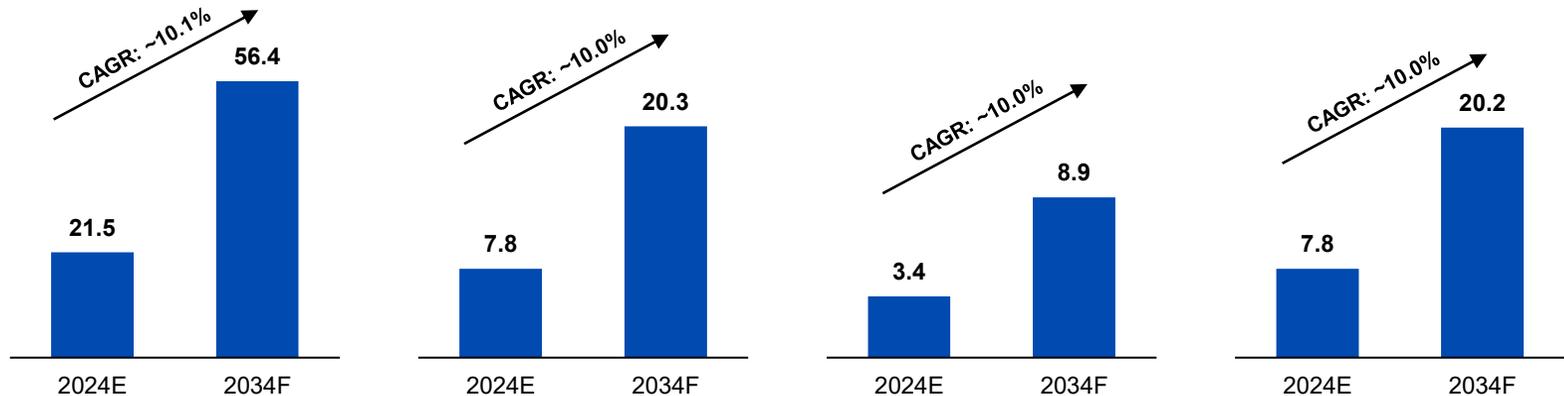
### Description

- |  |   |  |  |
|--|---|--|--|
| <ul style="list-style-type: none"> <li>Used to produce high-quality sapphire crystals and sapphire substrates with specific quality and physical requirements</li> </ul> | <ul style="list-style-type: none"> <li>Used in semiconductor fabrication across multiple phases of the manufacturing process</li> </ul> | <ul style="list-style-type: none"> <li>Used to produce cathode materials (coating &amp; doping) and anode coating</li> </ul> | <ul style="list-style-type: none"> <li>Industrial roles where chemical resistance, thermal stability and hardness are crucial</li> </ul> |
|--|---|--|--|

### Examples

- |  |   |   |   |
|--|---|---|---|
| <ul style="list-style-type: none"> <li>✓ LED substrates</li> <li>✓ Optical chips</li> <li>✓ Watch faces</li> <li>✓ Smartphone home buttons</li> <li>✓ Camera cover plates</li> </ul> | <ul style="list-style-type: none"> <li>✓ Chemical mechanical polishing</li> <li>✓ Substrate manufacturing</li> <li>✓ Thermal fillers and interface management</li> <li>✓ Etching chambers and masks</li> <li>✓ 5G components</li> </ul> | <ul style="list-style-type: none"> <li>✓ EV batteries</li> <li>✓ Consumer electronics batteries</li> <li>✓ Grid energy storage systems</li> <li>✓ Emerging battery applications (solid-state and sodium-ion)</li> </ul> | <ul style="list-style-type: none"> <li>✓ LEDs</li> <li>✓ Transparent ceramics</li> <li>✓ Medical ceramics</li> <li>✓ Polishes and coatings</li> </ul> |
|--|---|---|---|

### Total 4N / 4N+ HPA Demand (kt)

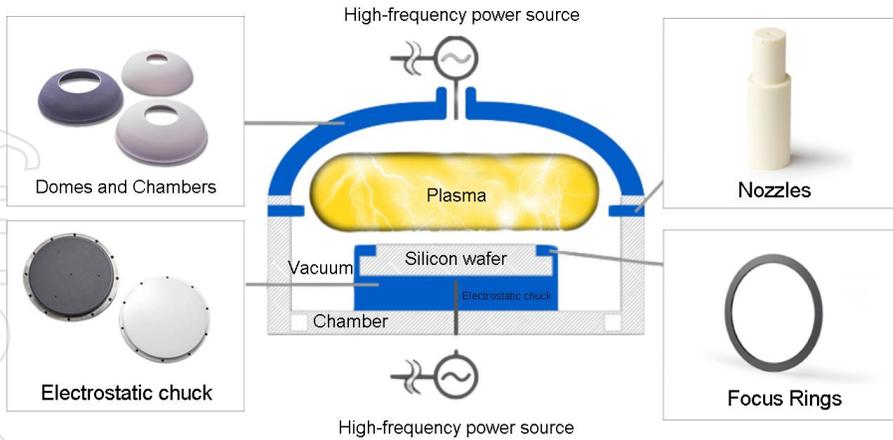


Source: CM Group 2025.

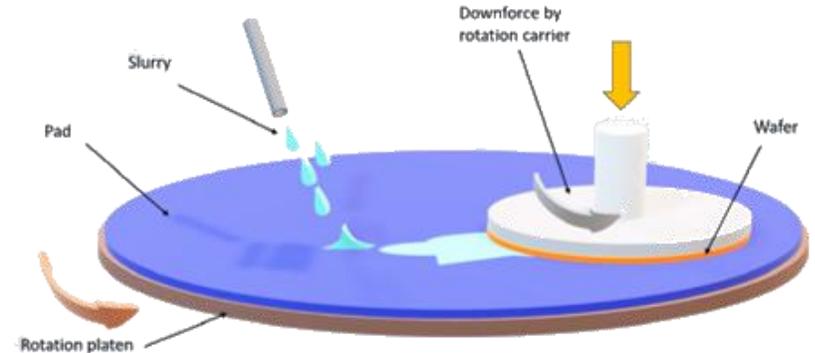
# Semiconductors – exceeding CM Group estimates

Data centres and AI is driving chip demand, performance improvements, and rapid increase in use of HPA

FABRICATION

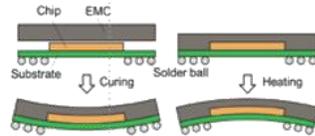
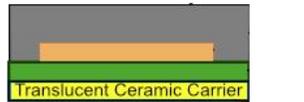
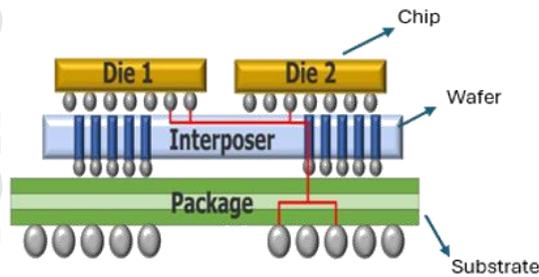


**Ceramic Objects**  
2026 to 2029 growth 100 tpa 4N



**Chemical Mechanical Polishing (CMP)**  
2026 to 2029 growth 600 tpa HPA

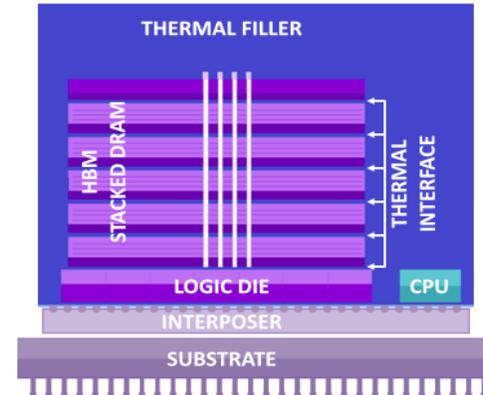
ASSEMBLY



Package warps during curing if there is no ceramic carrier to stabilize it

**Translucent Ceramic Carriers**  
2026 to 2029 growth - 1,350 tpa HPA 4N

OPERATION



**Thermal Fillers & Interface Management**  
2026 to 2029 growth - 4,235 tpa<sup>1</sup> HPA ~ 40% ultra-low alpha

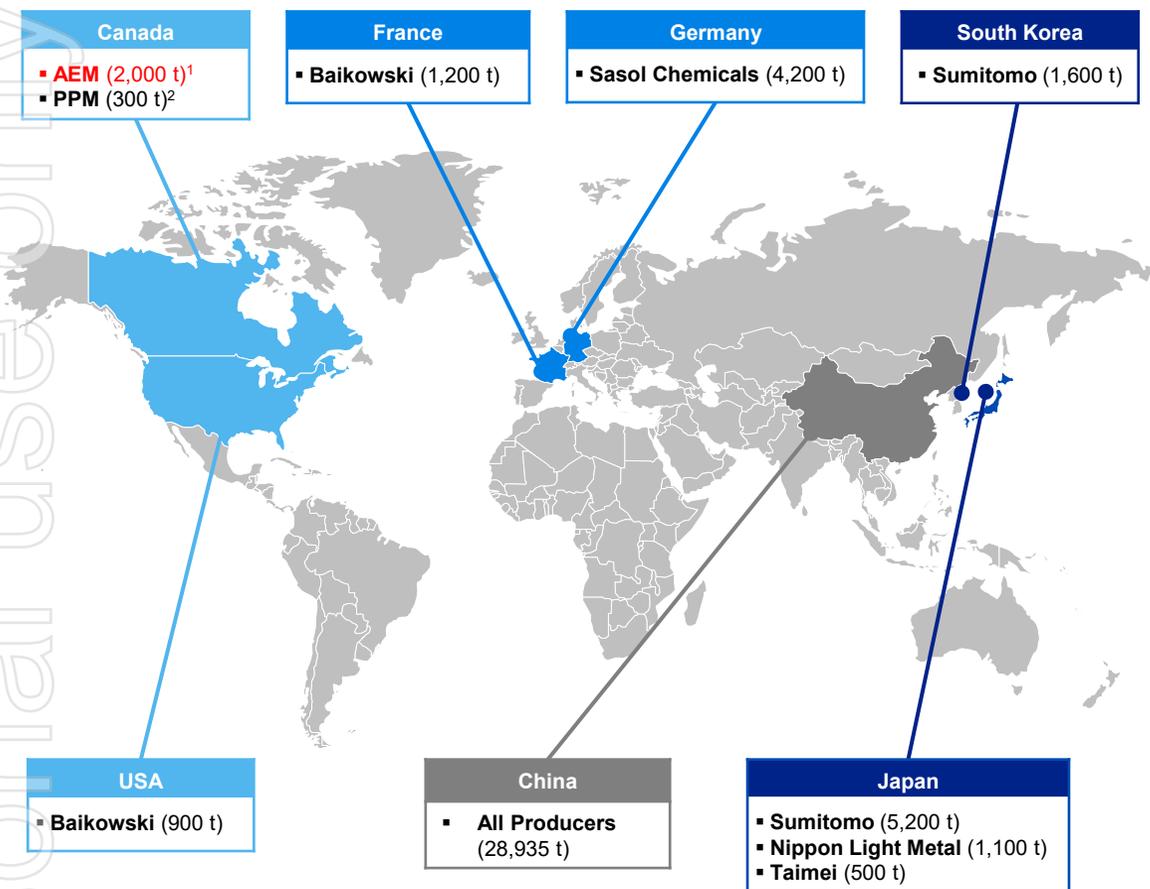
Source: Advanced Energy Minerals, TSMC, (1) Alpha HPA

# Overview of Global HPA Supply

China is the largest producer with production geared toward synthetic sapphire - imports approximately 2,000 tpa HPA for demanding applications – AEM target market

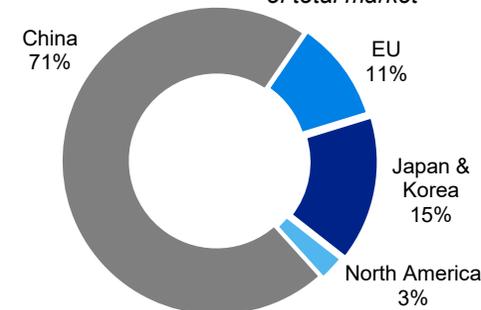
## Capacities of HPA Producers in 2024

Tonnes per annum



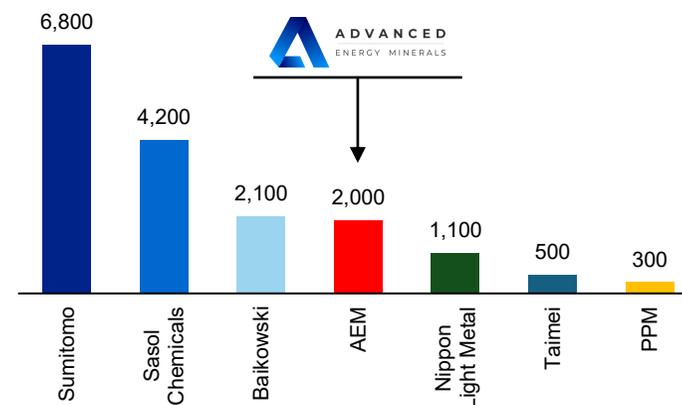
## Breakdown of Global Supply<sup>3</sup>

4N+ HPA Supply in 2024, % of total market



## Ex China Global Supply Breakdown<sup>1,2,4</sup>

Capacities of ex China HPA Producers in 2024, tpa



Source: CM Group report for AEM 2025 IPO.

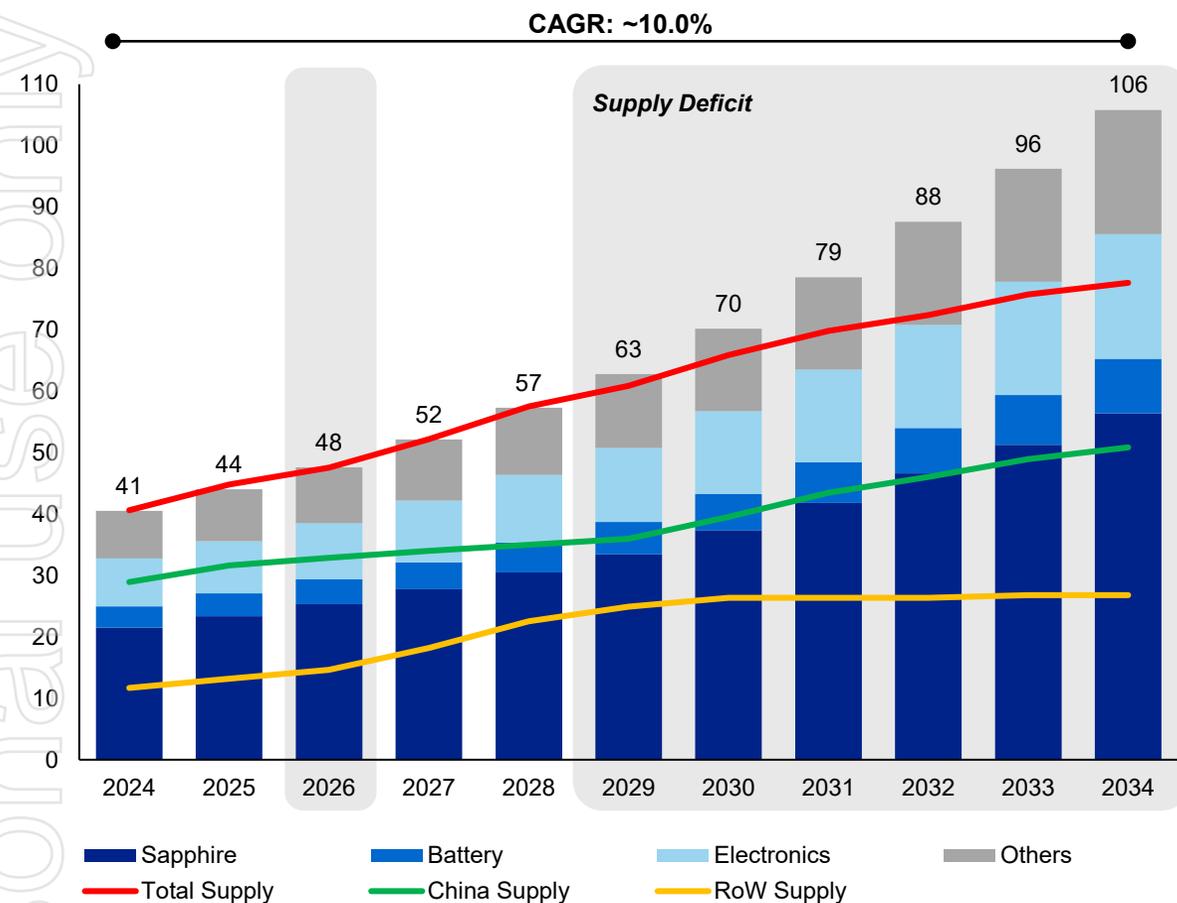
Notes: (1) Current Advanced Energy Minerals production capacity (2) PPM – Polar Performance Materials. (3) As at 2024, prior to AEM achieving 2,000 tpa production capacity. (4) Sumitomo combines South Korea and Japan assets.

# HPA Demand and Supply Dynamics

Strong demand growth combined with sluggish side supply response to lead to a sustained supply deficit from 2029

## Global HPA Supply and Demand Outlook

Kilotonnes per annum, 4N/4N+ HPA



## Overview

- Global demand for high-end 4N/4N+ HPA saw a 13.6% CAGR from 2013 to 2024, driven by strong demand in new industrial applications, in particular sapphire/LED manufacturing
- Global demand is forecast to grow at double-digit CAGR (~10.0%) over the 10-year period from 2024 to 2034
- Growth driven by continued strong demand from the key sapphire and LED market with notable growth areas from the semiconductor sector
- A sluggish supply response means a supply deficit is forecast in 2026, and again persistently from 2029
- China is expected to be excluded from rest of world markets, due to quality, intellectual property, supply chain risk, and market opaqueness concerns
- Production in 2024 of 4N/4N+ HPA outside China is considered closely approximated to actual capacity
  - Total supply ex. China is estimated to be 15.3 ktpa<sup>1</sup> mainly derived from producers in Japan, France and Germany
  - Sumitomo is currently the market leader (accounting for 6.8 ktpa (~44%) of ex. China supply)

Source: CM Group report for AEM 2025 IPO.

Note: (1) As at 2024, prior to AEM's Cap-Chat Plant achieving 2,000 tpa production capacity.

# HPA Pricing Dynamics

Tight market conditions and forecast undersupply expected to drive meaningful increase in HPA pricing

## HPA Pricing Dynamics

### Speciality Product

- Creates a strong interdependence between customer and supplier

### Heightened Customer Sensitivity

- To product quality and performance, resulting in highly customised end-products

### Lengthened Qualification Process

- Can take one to three years, however, once qualified, it creates high barrier to entry for competitors

### Bilateral Negotiations

- Prices are negotiated almost exclusively on a bilateral basis

### Sticky Relationships

- Strong interdependent customer-supplier relationships drives pricing more than production costs

AEM Core Product

## 4N/4N+ HPA Pricing Forecast

HPA Product Pricing (US\$/kg)

Form	Region	2025	2026	Long-term
Rest of World Gamma HPA	Japan	18.0	22.0	30.0
	EU	18.0	22.0	30.0
Rest of World HPA Spec 1	All Regions <sup>1</sup>	21.0	30.0	38.0
Rest of World Milled HPA (4N5+)	Japan	25.0	32.5	40.0
	EU	25.0	32.5	40.0
Rest of World HPA Pucks	Japan	29.0	41.0	46.0
	EU	36.0	41.0	46.0
Rest of World Nano HPA	Japan	45.0	50.0	50.0
	South Korea	50.0	50.0	50.0

### Commentary

- Customers behaviour indicates tight market conditions currently and discussions indicate concern about securing supply for new projects
- HPA markets currently attract high prices and return solid margins and are likely to continue to do so through the medium term
- The emergence of a new market sector for marginally lower HPA grades in the quality range 3N5 to 3N8 HPA attracts prices which are typically discounted by 40% to 50% relative to 4N/4N+ prices, depending on the specific quality requirement and application
- Strong demand growth outlook for several key HPA market sectors, a widening supply deficit and several significant barriers to entry, particularly around access to commercially proven production technology, provide pricing tailwinds

Source: CM Group report for AEM 2025 IPO.

Note: (1) All regions comprises Japan, EU, South Korea and USA.

# Global Industry Production Cost Curve

CM Group estimates AEM to have lower production costs than rest of world producers while delivering the same or higher quality HPA product

## Historically

Dominated by two distinct groupings:

- **China:** low-cost producers but cannot match quality of international peers
- **Rest of World (ROW):** producers in Japan, South Korea and the EU have significantly higher cost, on account of higher energy and labour costs

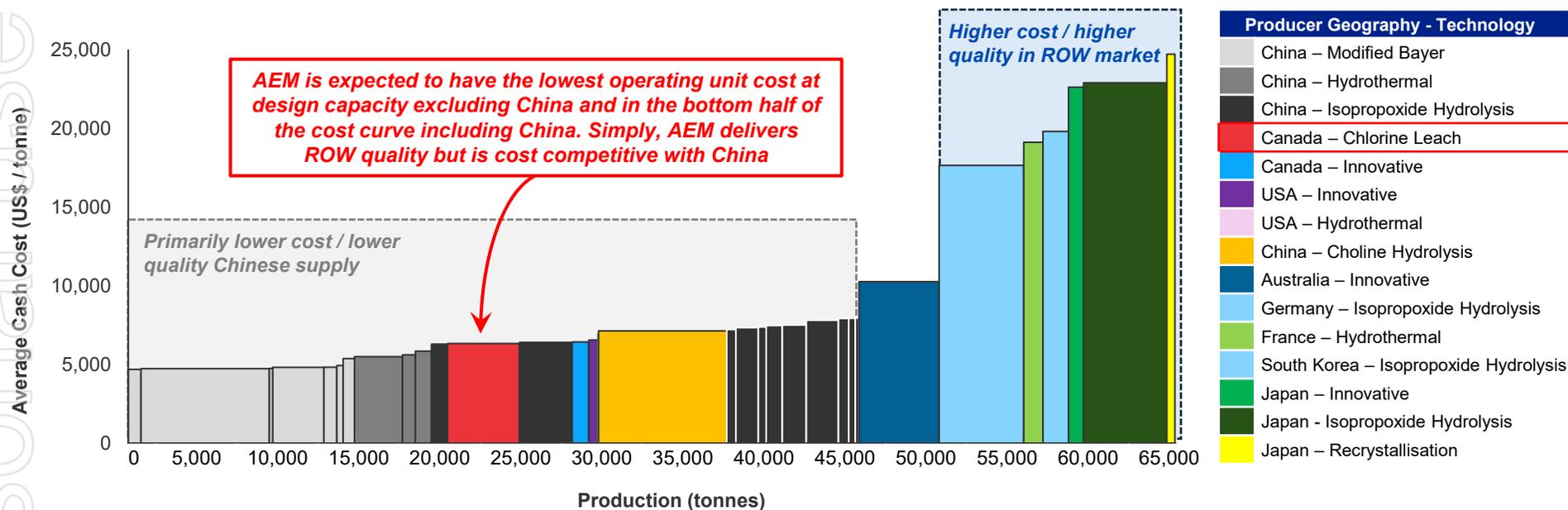
## Today

- New ROW producers (AEM) are entering the HPA 4N/4N+ market
- Utilising innovative low-cost technologies (such as chlorine leach) have demonstrated an ability to deliver an equivalent ROW quality product at a materially lower cost base

## Outlook

- A clear new 'step' will emerge in the global cost curve, between new, low-cost production and legacy, higher cost producers
- New producers entering the market at low cost (<US\$10,000/t) can take advantage of prices influenced by legacy producers

## Forecast Global HPA Commercial Scale Production Cost Curve by Technology 2030



Source: CM Group report for AEM 2025 IPO.



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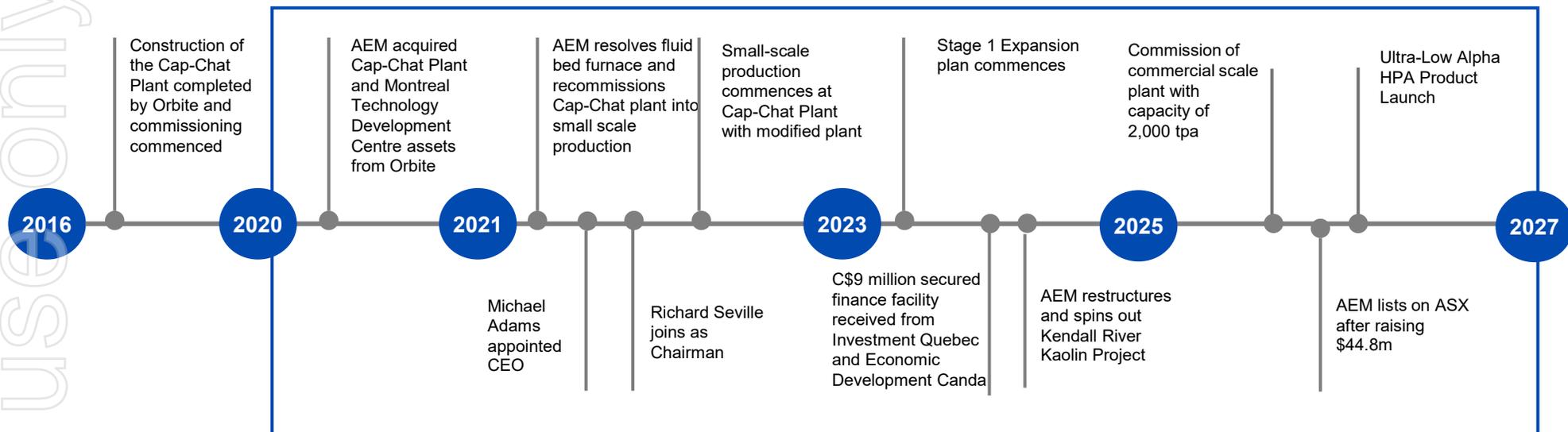
## Company Overview

# History of AEM

Since acquiring the Cap-Chat Plant in April 2020, AEM successfully resolved equipment selection issues at Cap-Chat, and has expanded and re-commissioned the plant for commercial scale production

## Plant's Prior Ownership

## Plant's Ownership Under AEM



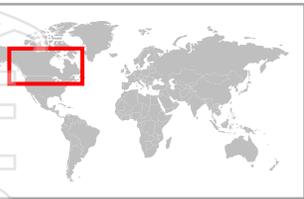
### Overview of the Acquisition and Recommissioning and Expansion of the Cap-Chat Plant

- Orbite spent >C\$275 million on research and development and patents, including C\$140 million on the Cap-Chat Plant
- Orbite became insolvent in 2017 after equipment selection issues. AEM acquired the Plant and associated intellectual property in 2020
- By mid-2021, AEM had resolved the equipment issues and successfully recommissioned the Cap-Chat Plant but with a modified low throughput “backend”. This permitted AEM to begin market engagement, customer qualification and early sales
- In mid 2023, AEM commenced the Stage 1 Expansion, Cap-Chat, delivering a commercial scale plant with a nameplate production capacity of 2,000 tpa, - commissioned in 2025
- From acquiring Orbite’s assets in 2020 to ASX listing at the end of 2025, AEM invested ~C\$80m in the business

# Strategically Located Operations

The Cap-Chat Plant is in the Canadian Province of Quebec, benefiting from a stable, advanced economy, locally sourced feedstock, and low-cost renewable energy

## Map of Canadian Operations



Cap-Chat Plant



Technology Development Centre



Rio Tinto Canadian Operations

A map of Canada with three location markers: a blue circle with '1' for Cap-Chat, Quebec; a blue circle with '2' for Montreal, Quebec; and a green circle with '3' for Saguenay-Lac-Saint-Jean Region, Quebec.

Cap-Chat, Quebec

Saguenay-Lac-Saint-Jean Region, Quebec

Montreal, Quebec

## Operational Advantages

✓ Politically stable and business friendly jurisdiction

✓ Educated and skilled workforce

✓ Access to low-cost renewable energy. Hydro Quebec supplies the plant with electricity at less than US5c/kWh – the Plant is wholly electrically powered

✓ Multiple possible sources of aluminous feedstock for the Company's manufacturing process from Quebec's aluminium industry including from its preferred supplier, Rio Tinto Alcan

✓ Funding available to support capital investment related to the exploitation of strategic minerals and the economic development of Quebec more generally<sup>1,2</sup>

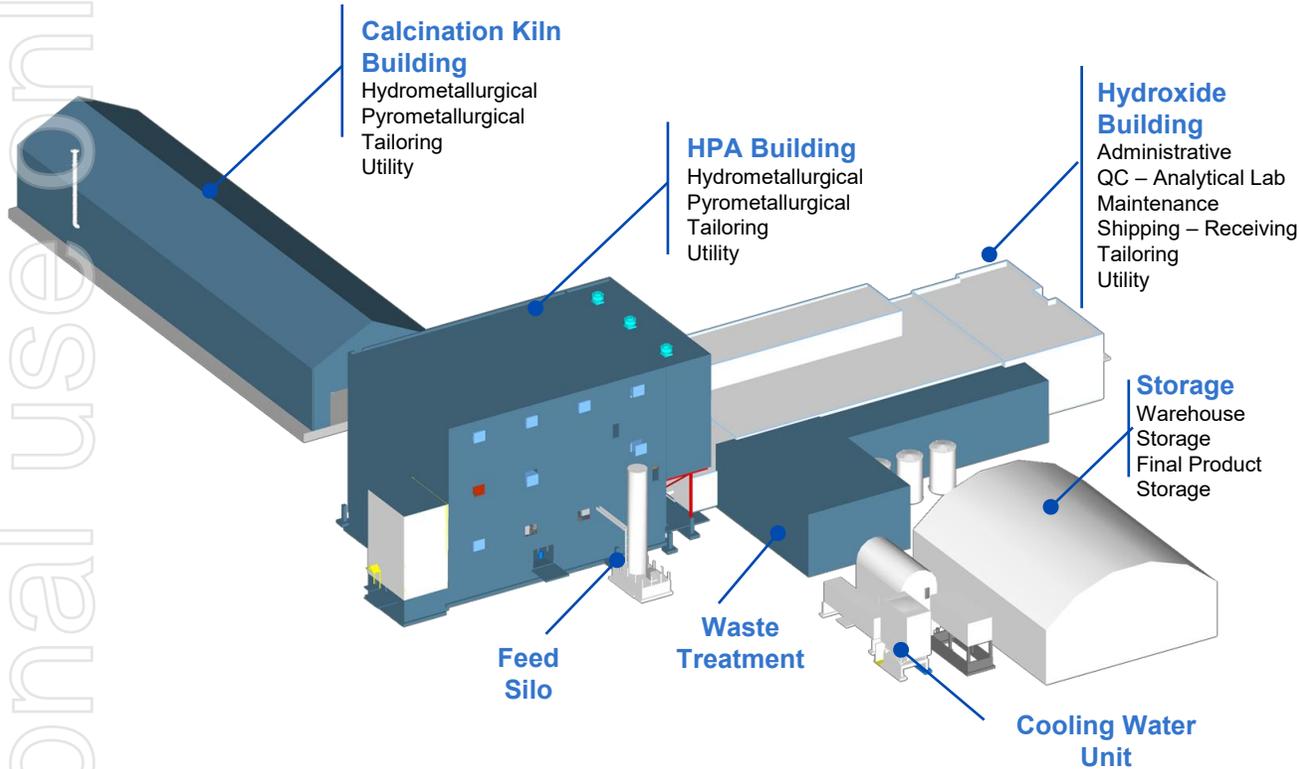
Notes: (1) AEM has secured project finance facilities from Investment Quebec of C\$7 million and Economic Development Canada of C\$2.0 million. (2) Federal and provincial government support includes a 25% capex rebate and tax credits for R&D in new materials (in FY24).

# Cap-Chat Plant Project

As part of Stage 1, AEM completed its initial two-year capital works program to deliver a commercially sized operation with a current nameplate production capacity of 2,000 tpa

## Cap Chat Plant Overview

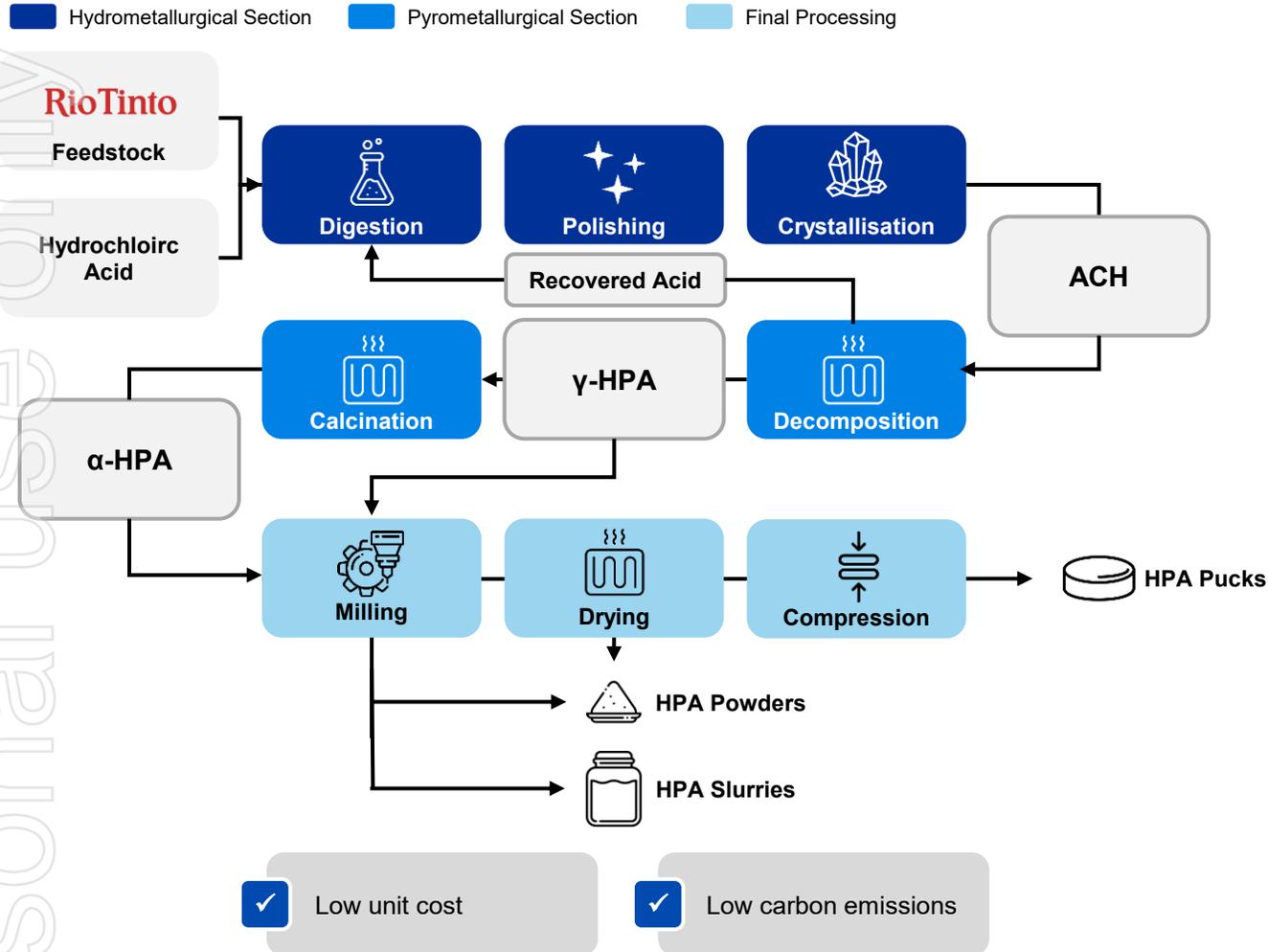
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# Patented Process and Technology

AEM's proprietary and patented production process has low unit and carbon costs

## AEM's Patented Chloride Leach Crystallisation Purification Process (CLCP)



## Intellectual Property

**15**  
Patent Families

**59**  
Granted Patents

**7**  
Pending Patents

✓  
Coverage Across Multiple Jurisdictions

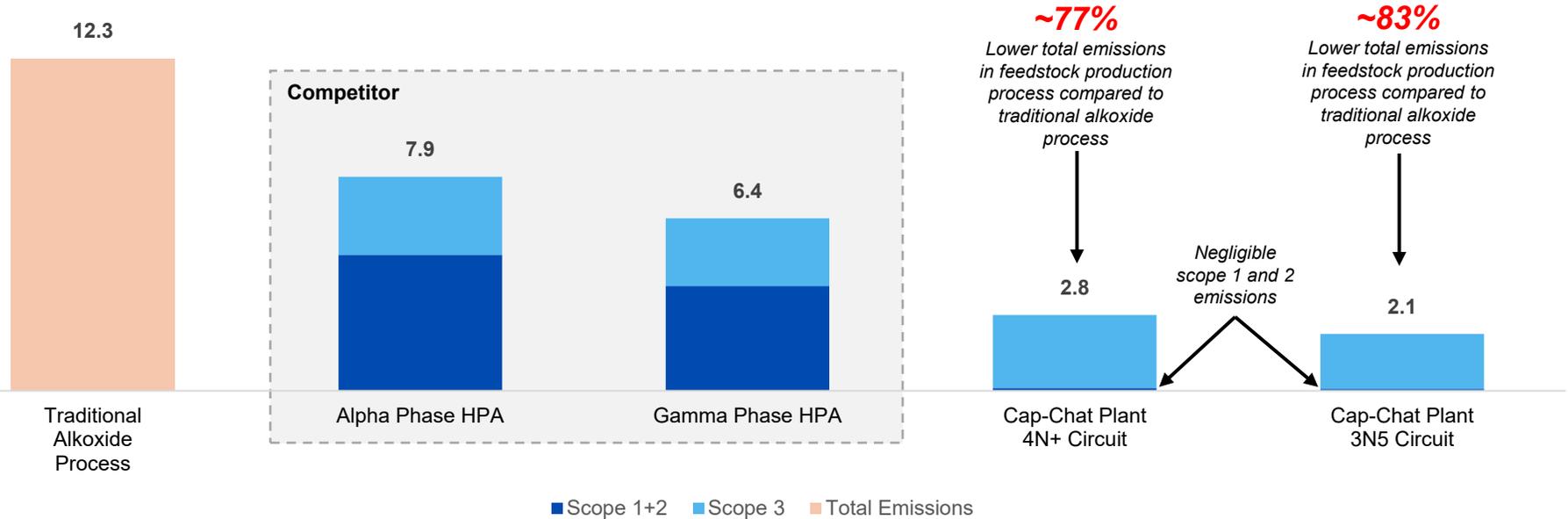
✓ Patent protected

# Industry Leading Carbon Emissions Profile

Cap Chat produced HPA and feedstock benefit from renewable energy from Hydro-Quebec

## Carbon Emissions Profile of HPA Production Methods

tonne CO2e per tonne of production



### Proprietary Processing

- ✓ AEM's proprietary CLCP process brings clear environmental benefits over conventional processes

### Renewable Electric Power

- ✓ 100% powered by electricity renewably generated by Hydro-Quebec

### Small Carbon Footprint (Scope 1 + 2)

- ✓ Low-cost energy on a small carbon footprint (verified in accordance with ISO 14064 at end of 2023, updated 2025)

### Green Supply Chains (Scope 3)

- ✓ Feedstock is sourced from within Quebec and produced with a significant proportion of renewable energy

### Certified Management Systems

- ✓ Management systems certified to comply with ISO9001, ISO14001 and ISO45001

Source: Optel (independent audit of AEM production operations and supply chain (completed in September 2023, updated July 2025), Alpha HPA 2024 Annual Report, Advanced Energy Minerals.

# The Montreal Technology Development Centre

The Montreal Technology Development Centre provides research and product development services that deliver further strategic and operational benefit to AEM

## Continued focus on innovation in production process...

AEM's Montreal Technology Development Centre comprises:



State-of-the-art  
Laboratory



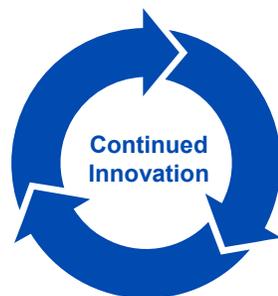
Advanced Analytical  
Equipment



Leading Research  
Scientists

Innovation process underpinned by customer collaboration:

Support of  
operations during  
product qualification



Development of  
optimised and new  
products in collaboration  
with customers

Working with  
research institutions  
on process and  
product  
development

## ...driving further strategic and financial benefit to AEM

### 1 Competitive Positioning

- ✓ Enhances intellectual property portfolio with proprietary, cutting-edge production technologies
- ✓ Develops production processes, such as nanoparticles, stable slurries, novel approaches to making monoliths for the sapphire sector and ultra-low alpha for the semiconductor sector

### 2 Margin Expansion

- ✓ Optimisation of product portfolio to focus on highest margin products
- ✓ Development of lower-energy, lower-cost, and environmentally sustainable HPA production processes, unlocking opportunity for further operational efficiencies and margin expansion

### 3 Market Responsiveness

- ✓ Accelerates product innovation and market responsiveness
- ✓ Rapid adaptation to evolving customer requirements in high-growth sectors

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# 4

## Plant Expansion



# Staged Expansion Plan Overview

Staged expansion strategy delivered 2,000 tpa nameplate capacity in 2025, and with a defined path to 6,000 tpa capacity in 2029

## Overview of Staged Expansion of AEM's Production Capacity

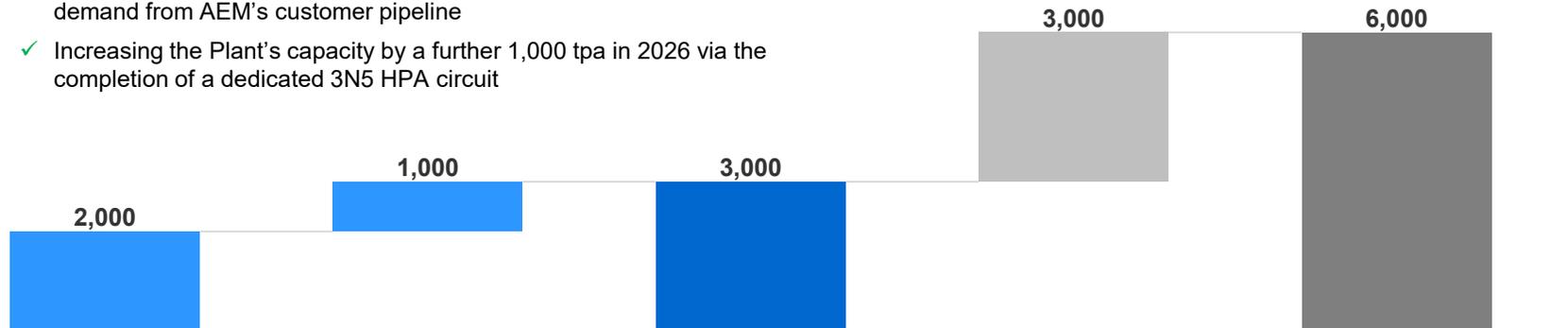
Maximum Production Capacity, Tonnes per annum

### Stage 1 Expansion Project

- ✓ Following a two-year capital works program, AEM successfully delivered 2,000 tpa HPA capacity in 2025
- ✓ Ramp up of the Plant to full production through 2026/2027 to match demand from AEM's customer pipeline
- ✓ Increasing the Plant's capacity by a further 1,000 tpa in 2026 via the completion of a dedicated 3N5 HPA circuit

### Stage 2 Expansion Project

- ✓ Doubles Stage 1 Capacity
- ✓ Low development hurdles
- ✓ Expansion forecast to match industry demand
- ✓ Land owned by AEM, raw materials and infrastructure adjacent to existing Stage 1 Cap-Chat Plant
- ✓ Robust economics



Stage	Current Operations	Dedicated 3N5 HPA Circuit	Post-Stage 1 Expansion	Stage 2 Expansion <sup>1</sup>	Post-Stage 2 Expansion <sup>1</sup>
Timing <sup>1</sup>	Complete	Mid 2026	In Production from Mid 2026	Commence Q2 2027	In Production Q2 2029
Estimated Capex	~C\$23m	~C\$1m	~C\$24m (total) <sup>2</sup>	~C\$299m	~C\$323m

Notes: (1) The above timetable is based on the Stage 2 PFS and certain assumptions. The timetable is indicative only and remains subject to change. (2) ~C\$23m = ~C\$1m + ~C\$24m Third party supply costs not including previous ~C\$140m capex incurred on Cap-Chat Plant prior to AEM's acquisition or a budgeted expenditure in 2026 of ~C\$5m for additional equipment in the Final Processing section of the Plant if justified by market demand for particular products.

# Stage 1 Expansion Project Overview

AEM successfully delivered production capacity of 2,000 tpa HPA, with a further 1,000 tpa in capacity on schedule to be delivered by mid 2026

## Pathway

 <b>Complete</b>	<ul style="list-style-type: none"> <li>✓ AEM successfully delivered the Stage 1 Expansion program 2023-2025 delivering commercial scale production capacity of 2,000 tpa - commissioned and independently validated</li> <li>✓ Plant modifications completed early 2026 to produce ultra-low alpha HPA primarily for the semiconductor sector.</li> <li>✓ AEM is now well placed to progressively ramp-up production to meet growing global demand</li> </ul>
 <b>Current Work Programme</b>	<ul style="list-style-type: none"> <li>▪ Expansion of the Cap-Chat Plant's capacity by 1,000 tpa via the purchase and installation of a dedicated 3N5 HPA circuit.</li> <li>▪ Installation of additional product tailoring equipment in the Plant's Final Processing section to cater to the evolving production mix</li> <li>▪ Ramp up the Plant to full production to meet expected sales demand growth through 2026/2027</li> </ul>

## Stage 1 Capital Works Program Delivery Timetable

Item	Completion
Installation of 50m Long Tunnel Kiln and Building	✓
Installation of Car-Bottom Furnace	✓
Installation of Four Electric Boilers	✓
Relocation of Existing Pressure Vessel	✓
Upgrade of Fluidised Bed Kiln	✓
Installation of Milling and Drying Items	✓
Upgrade of Plant's Electrical Supply	✓
Installation of Puck Production Items	✓
Plant modifications to produce ultra low alpha HPA	✓
<b>2,000 tpa Capacity</b>	✓
Production from 3N5 HPA Circuit	Mid 2026
Additional drying and milling equipment	2H 2026
<b>3,000 tpa Capacity</b>	<b>Mid 2026</b>

Source: WSP Independent Engineer's Report: Cap-Chat Plant and Stage 1 Expansion (September 2025).

# Stage 2 Expansion Project Overview

AEM has plans to double capacity to 6,000 tpa through a Stage 2 Expansion Project, which would be located adjacent to the existing Stage 1 Plant

## Expansion Project Overview

**Positive Stage 2 PFS<sup>1</sup> Completed**

**Doubling Production Capacity**

**Reduced Execution Risk**

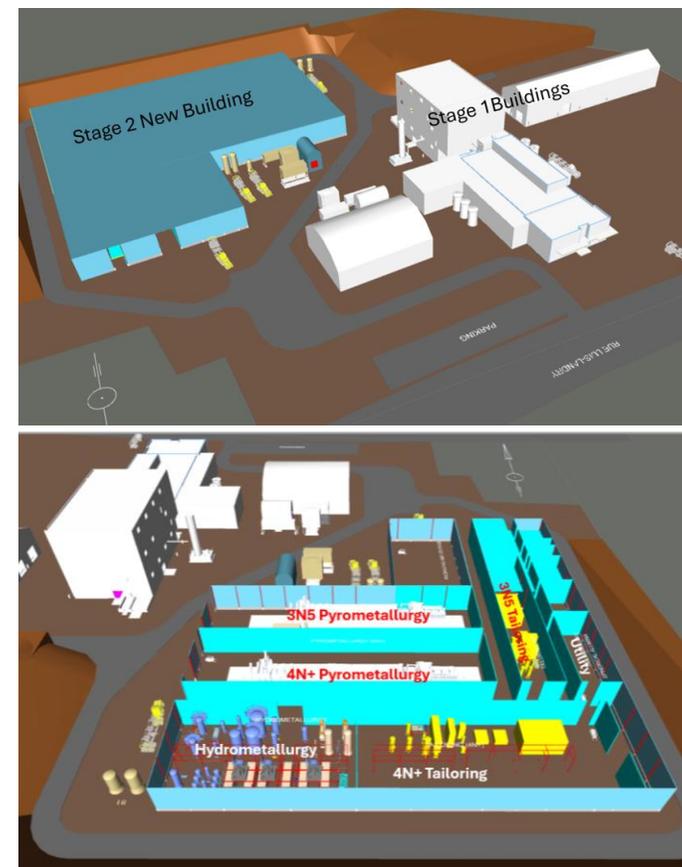
**Expansion Forecast to Match Demand**

**Robust Economics**

**Attractive Government Support & Debt Funding Optionality**

- Stage 2 expansion PFS has been completed in June 2025. DFS current and due for completion in Q3 with revised scope including integration with current plant and product mix.
- AEM's total production capacity at completion will double from 3,000 tpa to 6,000 tpa
- Land, raw materials and infrastructure are available to develop Stage 2 adjacent to the existing Stage 1 plant
- Construction to commence in early 2027 to match anticipated market demand and complete all critical external works before the following winter
- PFS indicates steady state EBITDA ranges between ~US\$47.1 million to ~US\$85.2 million per annum at a margin of ~74.0% to ~83.7% at steady state<sup>2</sup>
- Staged expansion to de-risk and deliver profitable operations ahead of Stage 2 FID<sup>3</sup>. Robust economics suitable for material debt funding component and Quebec government capex rebates potentially available

## Expansion Layout



Notes: (1) PFS – Pre-Feasibility Study. (2) Refer to assumptions outlined on Page 27. (3) FID – Final Investment Decision.

# Stage 2 Expansion Project Economics

Financial model for Cap-Chat Plant Stage 2 Expansion PFS highlights robust economics across the project life

## Stage 2 PFS Metrics at Steady State Production

Financial Metrics Based on Pre-Feasibility Study

		1	2
	Units	CM Group Current Pricing	CM Group Long-Term Pricing
<b>Stage 2 Expansion Project Capex</b>			
Initial Capex <sup>1</sup>	US\$m	215.0	215.0
<b>Steady State Metrics (From 2032)</b>			
Production Volume	tonnes	~3,000	~3,000
Weighted Product Price	US\$/kg	21.3	34.0
<b>Revenue<sup>2</sup></b>	<b>US\$m</b>	<b>63.6</b>	<b>102.0</b>
Variable Costs <sup>3</sup>	US\$m	10.1	10.1
Fixed Costs <sup>3</sup>	US\$m	6.5	6.5
<b>Total Opex</b>	<b>US\$m</b>	<b>16.6</b>	<b>16.6</b>
Unit Cash Cost	US\$/kg	5.5	5.5
<b>EBITDA<sup>4</sup></b>	<b>US\$m</b>	<b>47.1</b>	<b>85.2</b>
Margin	%	74.0%	83.7%

## Overview

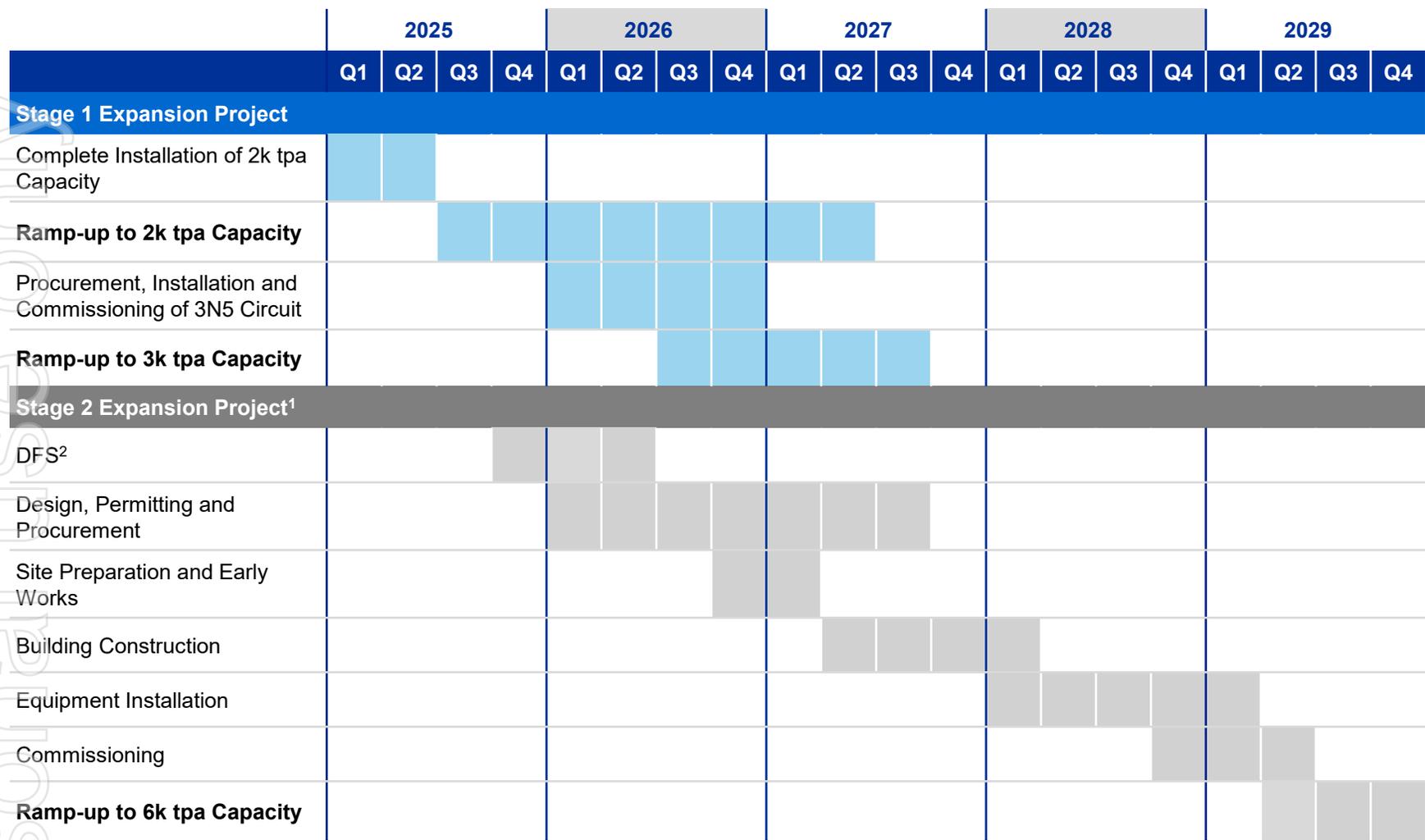
- WSP conducted an engineering review of AEM's Pre-feasibility Study Report for the Stage 2 Expansion Project at the Cap-Chat Plant (the **WSP Report**)
- BDO Services Ltd (**BDO**) produced a financial model based on capex and opex estimates verified by the WSP Report and product pricing from CM Group
- AEM has explored the Stage 2 Expansion Project's economics under two pricing scenarios:
  - Weighted product price based on forecast production mix at current pricing per CM Group Industry Report
  - Weighted product price based on forecast production mix at long term forecast pricing per CM Group Industry Report
- At ~3,000 tpa, the PFS EBITDA ranges between ~US\$47.1 million to ~US\$85.2 million per annum at a margin of ~74.0% to ~83.7% at steady state (2032)
- A feasibility study is due for completion in mid-2026 with the front-end engineering design to be completed in 1H 2027

Source: WSP Independent Technical Report - Pre-Feasibility Engineering Cap-Chat Plant Stage 2 Expansion (September 2025), CM Group, BDO, Advanced Energy Minerals.

Notes: (1) Capex estimate of ~C\$298.8 million as at Q4 2024 prices. Capex estimate does not take account of the effects of cost escalation or the corporate costs that AEM would incur in connection with the Project. Capex estimate for Stage 2 converted to US\$ at an exchange rate of ~0.72 US\$ / 1.00 CA\$. Does not include sustaining capex required for ongoing plant operation. (2) Production Volume x Weighted Product Price (3) Opex estimate for Stage 2 across forecast period based on 91% run rate utilisation for plant production converted to US\$ at an exchange rate of ~0.72 US\$ / 1.00 CA\$. (4) Any discrepancies between totals and sums of components are due to rounding.

# Staged Expansion Plan Timetable

A clear path to 6,000 tpa HPA capacity by 2029



*Conservative ramp-up to Q2 2031*

Notes: (1) The above timetable is based on the Stage 2 PFS and certain assumptions. The timetable is indicative only and remains subject to change. (2) DFS – Definitive Feasibility Study.

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5

Sales and Marketing

Etape 1 : réaction de l'hydroxyde d'aluminium

Reacteur : cuve, agitateur, Chemise	
3 ingrédients	
Eau déminéralisée	
Acide chlorhydrique	Cuve
Hydroxyde d'aluminium	
Energie d'activation : vapeur	Chemise
Refroidissement : eau de refroidissement	Chemise
Purge chimie : air comprimé	Chemise

Chlorure d'aluminium

12 / 66

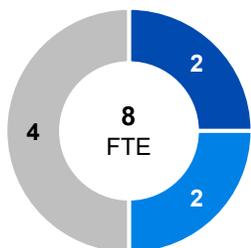
# Global Sales Infrastructure

Dedicated in-house sales team with deep industry and sales experience complemented by a global network of distributors and agents

## Global sales infrastructure in place...

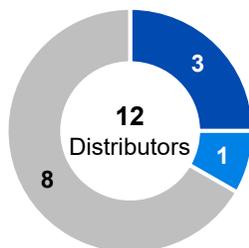
### In-house Sales Team

■ Europe ■ North America ■ Asia

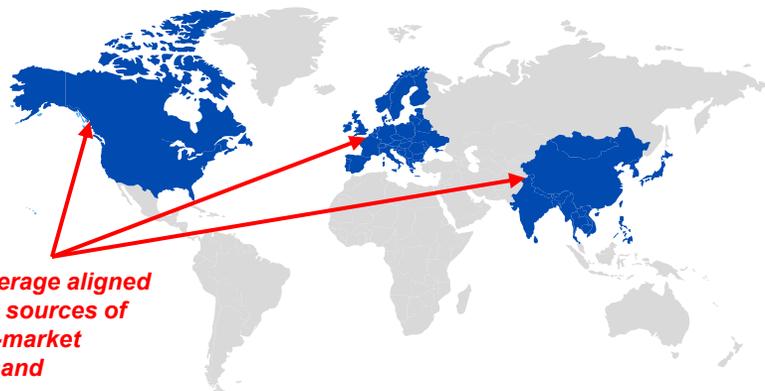


### Distributors / Agents

■ Europe ■ North America ■ Asia



■ In-house and distributor end-market coverage



## ...providing robust coverage of end-markets

	In-house Sales Team	Distributors / Agents
<b>Overview</b>	<ul style="list-style-type: none"> <li>Led by Frankfurt-based Dr Daniele Fregonese</li> <li>Team possesses deep industry and sales experience</li> <li>Strong relationships and well connected with industry participants</li> </ul>	<ul style="list-style-type: none"> <li>Independent reselling to end customers</li> <li>Coverage across USA, Europe and Asia</li> </ul>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>✓ Deep product knowledge to drive conversion</li> <li>✓ Direct customer feedback to iterate sales process</li> <li>✓ Stronger margin profile</li> <li>✓ Nurture strategic accounts for growth</li> </ul>	<ul style="list-style-type: none"> <li>✓ Broad reach across verticals and geographies</li> <li>✓ Leverage existing networks</li> <li>✓ Rapidly expand market presence</li> </ul>
<b>Target Customers</b>	<ul style="list-style-type: none"> <li>Large international and market leading accounts</li> </ul>	<ul style="list-style-type: none"> <li>Existing and smaller end-customers</li> </ul>
<b>Sales Channels / Example Distributors</b>	<ul style="list-style-type: none"> <li>Trade shows</li> <li>Database direct communications</li> <li>LinkedIn</li> <li>Sapphire Green Alliance</li> </ul>	

# Customer Pipeline

The customer pipeline overall has continued to grow since December with increase in industrial trials reflecting customer interest in ultra low alpha HPA

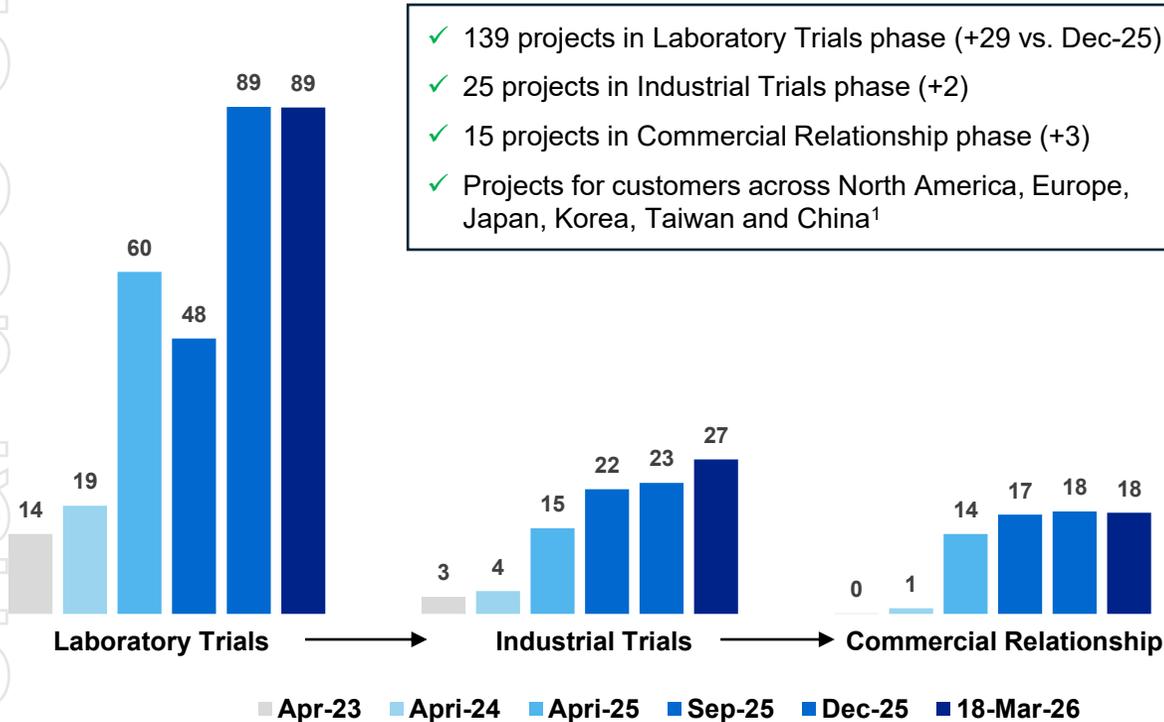
Focus on commercialisation has forged a robust customer pipeline...

~US\$134m<sup>1</sup>  
potential annual value

~5,112  
tonnes per annum

~US\$26.2/kg  
average price

Value in US\$ millions



- ✓ 139 projects in Laboratory Trials phase (+29 vs. Dec-25)
- ✓ 25 projects in Industrial Trials phase (+2)
- ✓ 15 projects in Commercial Relationship phase (+3)
- ✓ Projects for customers across North America, Europe, Japan, Korea, Taiwan and China<sup>1</sup>

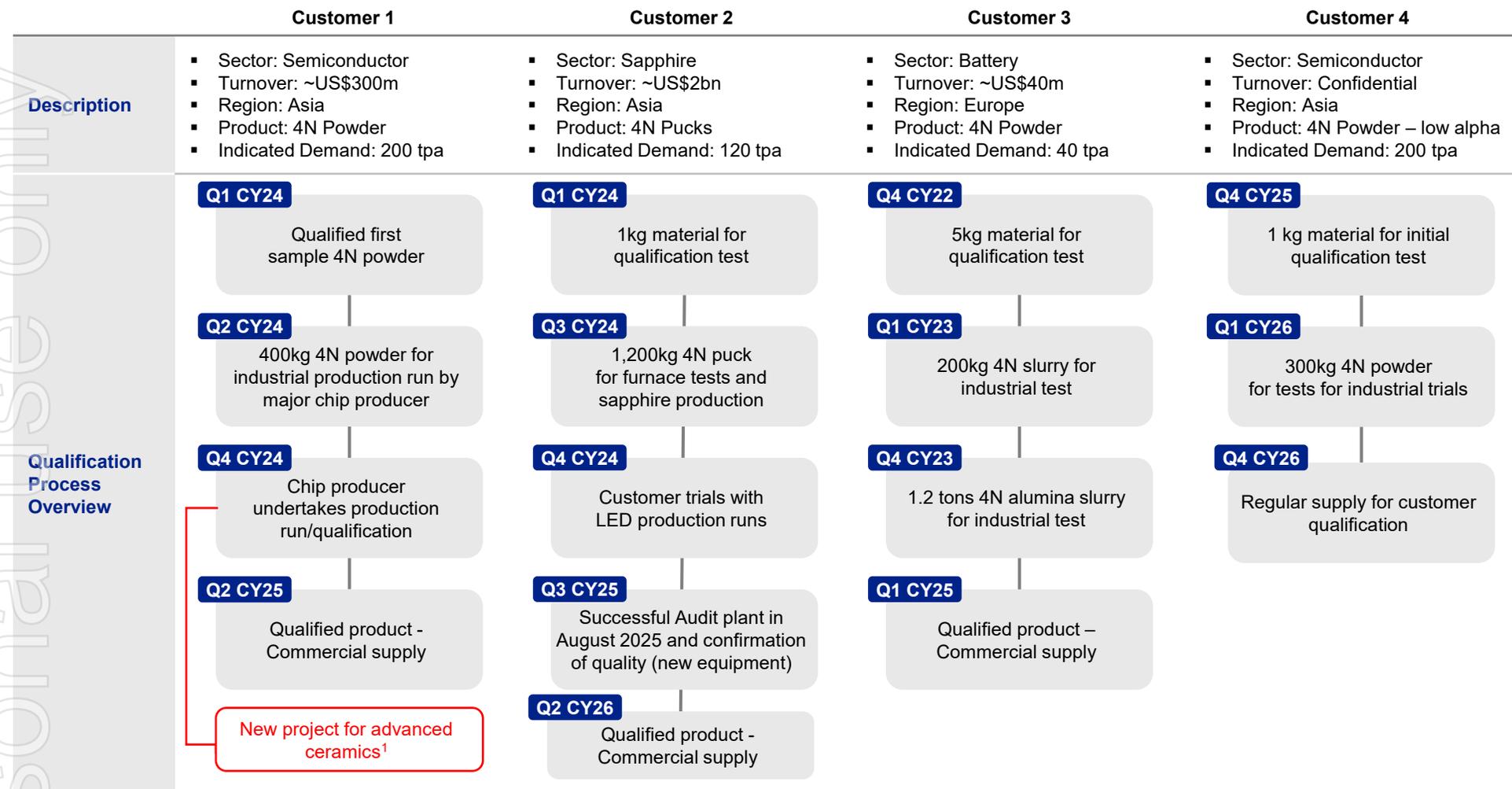
...with customers seeking AEM's...

- ✓ High purity product
- ✓ Flexible and collaborative product development
- ✓ Sustainable product process to meet evolving ESG requirements
- ✓ Canadian plant location ensuring stability and security of supply
- ✓ Delinking from China
- ✓ Stable cost base, independent of oil prices

Notes: (1) Un-risked basis comprising ~3,421 t of 4N+ and ~1,691 t of 3N5+ HPA

# Examples of Qualification Process

HPA has a wide range of downstream applications, and the qualification processes required by customers can vary significantly, due to differences in product types and application scenarios



Note: (1) Project: Customer's process to qualify and, if successful, then buy product for a specific application.

# Market Conditions and Outreach

Strong customer demand, fueled by growth in key end markets and favourable supply-side factors, is driving increased interest and engagement in AEM's HPA products from a diverse range of international customers

**AEM's competitive advantages are resonating with customers, contributing to a rapidly growing sales pipeline**

“

*The stationary battery market for NaNiCl-technology is rapidly approaching the Gigawatt-hour-Scale. Our first Pilot-Production line of 0.1 GWh will require 150 tonnes of HPA per year*

**CEO, Battery Company (Germany)**

”

“

*Following the strong response we received at the Ceramic Expo in Shanghai, where we showcased AEM's products, we are confident that we will be able to sell tens of tons of AEM's HPA in the Chinese market*

**Distributor (China)**

”

“

*Demand for high-end technical ceramics for the semiconductor industry is growing so rapidly that it has forced us and several of our competitors to expand our production capacity and we require rapidly growing amounts of HPA.*

**CEO, Ceramic Object Manufacturer (Taiwan)**

”

“

*The luxury watch industry is collectively working to repatriate sapphire production back to Switzerland after it had shifted to China due to cost considerations. By 2030, I anticipate that premium watch brands will exclusively source Swiss-made sapphire components*

**CEO, Sapphire Producer (Switzerland)**

”

“

*Our large customer network in Korea's semiconductor industry tells us that the industry's demand for HPA is set to grow very fast, driven by the increasing use of AI and 3-nanometer chip architecture. We aim to assist AEM quickly to become a leading supplier of HPA to the Korean market*

**Distributor (Korea)**

”

6

Board and Management



# Management Team

AEM's management team has the requisite skills and experience to oversee plant development and long-term operational success

## Key Management



**Richard Seville**  
Executive Chairman



**Michael Adams**  
Managing Director / CEO



**Alexis Clark**  
Chief Financial Officer

- Executive Chairperson of AEM since Jan 2022
- Highly successful track record in the junior to mid-cap resources space
- Over 25 years as a Director of various ASX, TSX or AIM listed companies (including Allkem Limited, Oz Minerals and Agrimin Ltd)
- Took Allkem from IPO in 2007 to a significant producer of lithium chemicals and part of the battery supply chain

- Joined AEM Board in Jan 2021, became a full-time employee and was appointed Managing Director and CEO in May 2021
- Now based in Cap-Chat
- Professionally qualified chartered engineer with over 40 years of experience
- Experience in developing, financing and building major infrastructure projects at Trafalgar House, Kvaerner and Gammon Construction

- Over 20 years international finance experience
- Previously worked at Merrill Lynch and Patersons (now Canaccord) in equity research covering the Australian energy sector
- Background in originating and executing structured finance transactions for infrastructure, resources and energy companies

*Supported by a deeply-experienced senior management team...*



**Stephane Blanchette**  
Chief Human Resources Officer



**Sylvain Sayer**  
SVP – Production and Asset Management



**Dr Daniele Fregonese**  
SVP – Sales and Marketing



**Dr Ebrahim Alizadeh**  
SVP – Technical Services and R&D

# Non-Executive Directors<sup>1</sup>

Highly experienced and credentialed Board of Directors who remain firmly aligned in driving operational success



**Sir Richard Evans**

Non-Independent, Non-Executive Director

- ✓ Decades of high-level executive experience
- ✓ Various roles at BAE Systems Plc including CEO (1990) and Chairman (1998) before retiring in 2004
- ✓ Former Director on National Westminster Bank plc and United Utilities plc
- ✓ Deep experience in engineering, manufacturing and international commerce



**Leanne Heywood OAM**

Independent, Non-Executive Director

- ✓ International career in the mining sector, including 10 years with the Rio Tinto Copper Group
- ✓ Experience includes strategic marketing, business finance and compliance
- ✓ Currently serves as a non-executive director of MAC Copper (ASX:MAC), Lotus Resources (ASX:LOT), Snowy Hydro Limited and Denison Gas Limited. Formerly a Director of Allkem (ASX:AKE)



**Steve Petersohn**

Independent, Non-Executive Director

- ✓ 40 years of international experience in trading and distribution, investment banking and fund management
- ✓ Steve opened Jefferies & Co's office in Hong Kong and spent 10 years with Morgan Stanley Asia
- ✓ On the Board of Singapore-listed company Trans China Automotive (SGX:V12)



**Tim Fletcher**

Non-Independent, Non-Executive Director

- ✓ Commercial background in international markets including Mexico, London, Hong Kong and China
- ✓ Sector expertise in minerals, energy and chemicals processes
- ✓ Advisor for mainland China and Australia in mining and minerals
- ✓ Played a key role in AEM's move into HPA



**Anthony Giammaria**

Independent, Non-Executive Director

- ✓ Over 20 years commercial and corporate law experience focused on corporate finance
- ✓ Deep understanding of Canada's legal landscape
- ✓ Has advised AEM since 2022 and played a key role in the restructuring of the group
- ✓ Member of the Quebec Bar Since 2001



**Nassif Obeid**

Independent, Non-Executive Director

- ✓ Business executive with 25 years of experience
- ✓ Strong track record in financing, developing and building real estate projects
- ✓ Close involvement in developing AEM's business plans for the Cap-Chat plant
- ✓ Nassif is a Managing Director at Truss Holding

Note: (1) Richard Seville and Michael Adams also serve on the Board in Executive roles.

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## Closing Remarks



# Investment Highlights

## 1 Emerging Leader in HPA

- ✓ Innovative HPA producer capable of producing both purity levels up to 5N (99.999%) and uranium levels less than 1ppb
- ✓ Capacity expansion at the Cap-Chat Plant to 2,000 tpa delivered in 2025 placing AEM among world's leading HPA suppliers

## 2 Innovative and Sustainable Production

- ✓ Patented process powered 100% by renewables and enabled by locally sourced feedstock
- ✓ Forecast to be in the bottom half of the global industry cost curve including China while producing high purity product<sup>1</sup>

## 3 Strong Industry Tailwinds

- ✓ HPA is high growth market with a ~13.6% CAGR between 2013 and 2024 with forecast ~10.0% CAGR to 2034<sup>1</sup>
- ✓ Leveraged to attractive end-markets with strong tailwinds for HPA pricing driven by industry undersupply

## 4 Strategic Plant Expansion Plan

- ✓ Stage 1 delivered 2,000 tpa of HPA capacity in 2025 and will add dedicated 3N5 circuit in 2026 delivering a total of 3,000 tpa
- ✓ Stage 2 PFS to deliver indicates robust project economics with steady state annual EBITDA of ~US\$47.1m to ~US\$85.2m<sup>2</sup>

## 5 Robust Customer Pipeline

- ✓ 15 customer projects<sup>4</sup> commercially engaged and 164 under qualification trials
- ✓ Customer pipeline of ~US\$134 million per annum across North America, Europe, Japan, Korea, Taiwan, and China

## 6 Experienced Leadership with Proven Capability

- ✓ Experienced management team with a demonstrated track record of project construction and operational success
- ✓ Proven board led by Richard Seville (former MD and CEO of Allkem Lithium and NED<sup>3</sup> of OZ Minerals)

Notes: (1) CM Group 2025. (2) Refer to assumptions outlined on page 27. (3) Non-Executive Director. (4) Project: Customer's process to qualify and, if successful, then buy product for a specific application.

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ENERGY MINERALS