ADVANCED
ENGINEERED MATERIALS

ASX Announcement
24 August 2026 ASX:
AEM

Advanced Engineered Materials provides update on commercial progress and developments in the HPA market

Highlights

01	1H 2026 Sales of 12.5 tonnes of HPA for a revenue of A$460k (US$317k[1]) unaudited, up 85% on the previous corresponding period (PCP), with an average price of US$25.4/kg.
02	1H 2026 Orders were 17.6 tonnes for A$687k (US$474k[2]) with an average price of US$27.0/kg. Outstanding orders (5.1 tonnes) were carried forward for delivery after period end.
03	Customer Pipeline[a] at the end of July 2026 stood at US$190m (6,300 tonnes at US$30.2/kg) a significant increase on end of June figures of US$160m (5,500 tonnes at US$29.0/kg). Growth in the pipeline continuing through August.
04	Sales are expected to increase significantly in 2H 2026 to approximately 40 to 60 tonnes, accelerating through 2027 as existing qualified customers in the semiconductor sector complete tooling up to manufacture products, and customers currently qualifying AEM's HPA complete their qualification processes and move into commercial production.
05	AEM's 4N+ circuit at Cap-Chat is expected to achieve full run rate by the end of 2027, however ramp up of the 3N5+ circuit will be delayed into 2028 as AEM and customers prioritise the sales and qualification processes of higher-purity products into the faster growing sectors.
06	Market conditions are favourable with strong interest in AEM's 4N+ HPA for semiconductor applications, particularly for advanced ceramics for chip fabrication and packaging as well as ultra-low alpha HPA (both gamma and alpha crystalline forms) for thermal management.

Managing Director and CEO Michael Adams said:

"The first half demonstrated the strength of demand building for AEM's high-purity alumina, with sales growing strongly reflecting the growth in commercial supply to customers who had previously completed qualification. This is clear evidence that our product consistently meets the exacting purity and performance requirements of the semiconductor supply chain. Converting those qualifications into large-scale commercial sales has taken a little longer than we would have liked, as customers completed the tooling required to run our material in their expanded production, but the direction of travel is clear and building."

"I am especially pleased about the way we have grown our customer pipeline, in particular, the qualified customers in the commercial relationship phase, and those customers in the industrial trials stage which have grown 40% to 17 and 32 respectively since the beginning of the year. With almost 50 customers in the commercial relationship stage or about to enter it, we expect a significant step-up in sales through the second half and into 2027."

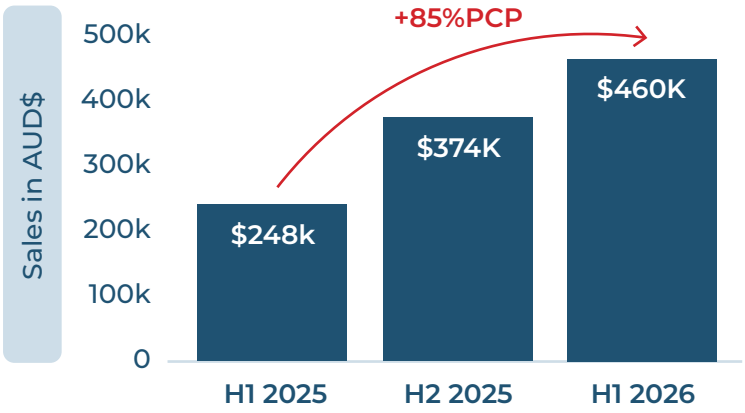
Note: (a) Customer pipeline presents quantities on an un-risked basis and prices at a point in time arising from AEM's engagement with its customers through the qualification process. The resultant potential annual value reflects the total annual value of the pipeline (quantity x price/kg) on an un-risked basis comprising ~4,800 t of 4N+ HPA and ~1,500 t of 3N5 HPA

Advanced Engineered Materials is pleased to provide an update on commercial progress and operational activities.

Sales and Orders Performance

Sales continued to increase through the first half of the year with sales of 12.5 tonnes of HPA for a revenue of A$460k (US$317k at US$25.4/kg) unaudited, up 85% on the previous corresponding period (PCP), and with orders of 17.6 tonnes for A$687k (US$474k at US$27.0/kg). Outstanding orders (5.1 tonnes) were carried forward for delivery after period end.

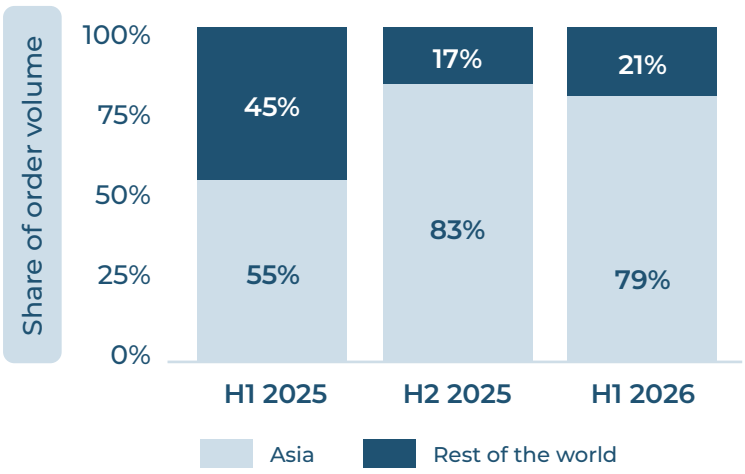
Sales Revenue by Half Year



Note – H1 2026 unaudited

Order growth was led by Asia, which accounted for the vast majority of commercial order value, representing 79% of order volume in the first half of 2026, up from 55% in the first half of 2025.

Order volume by region



Although sales growth increased materially, it was negatively impacted by key customers taking longer than expected to tool up new production capacity for the new applications that will drive a rapidly growing demand for HPA once they are in production, particularly in the complex semiconductor supply chain. Demand growth for sapphire for high-performance LED lighting in the automotive sector also slowed as manufacturers responded to a slowdown in China's new car sales by reducing excess stock.

Sales are expected to increase significantly in 2H 2026 to approximately 40 to 60 tonnes, accelerating further in 2027 as existing qualified customers complete the abovementioned tooling up, and customers currently qualifying AEM's HPA complete their qualification processes and move into commercial production.

Based on current progress with the Customer Pipeline[a], AEM expects that the 4N+ circuit at its Cap-Chat Plant should achieve full run rate by the end of 2027 driven by continued growth in demand for higher-purity HPA including from the semiconductor sector. Ramping up of the 3N5+ circuit to full production run rate is not likely to be completed until mid-2028 as AEM and its customers prioritise the sales and qualification processes of higher-purity products into the faster growing sectors.

Customer Pipeline Development

AEM's Customer Pipeline[a] continued to expand through July 2026, reaching 216 projects at month end, up from 210 in June 2026 reflecting a growing sense of urgency among customers to secure supply as the looming HPA supply crunch started to become reality, with anecdotal evidence pointing to one of the world's leading HPA producers operating at full capacity and consequently having to rationalise its customer base.

By the end of July, the Customer Pipeline[a] stood at US$190m (6,300 tonnes at US$30.2/kg) a significant increase on end of June figures of US$160m (5,500 tonnes at US$29.0/kg). Growth has continued through August.

Since the beginning of the year, qualified customers in the commercial relationship phase and industrial trial phase have increased by over 40% to 17 and 32 respectively, totalling 49 customers. With industrial phase customers expected to complete qualification and advance to the commercial phase, this provides a strong foundation for sales growth looking forward.

Development of Commercial Relationships

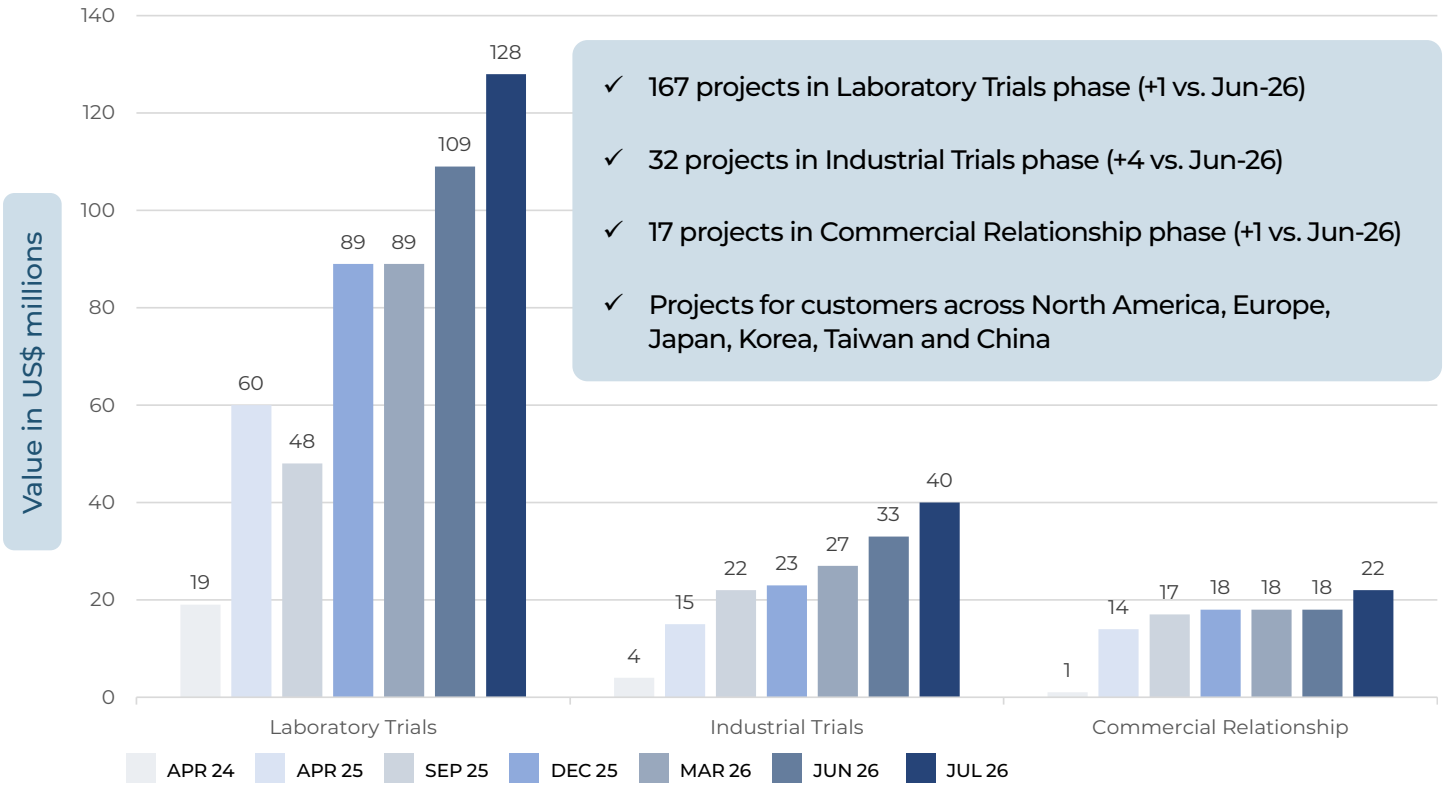
Although the HPA market, like those for many other specialty chemicals, has tended not to use long-term, quantity/price certain supply contracts traditionally, AEM has been making progress in reaching long-term supply framework agreements due to the increasing urgency among customers to secure supply, as their needs for HPA grow. AEM recently signed one such agreement, bringing the total that it now has in place to four, and expects to conclude a further three within 3Q 2026. AEM will update shareholders on the scope of these arrangements at that time.

AEM has also been making good progress in expanding its network of distributors and is finalising arrangements with three new distributors, two for China and one for Japan, details of which will be supplied to shareholders when completed.

~US$190m[a]
potential annual value

~6,300
tonnes per annum

~US$30.2/kg
average price



- ✓ 167 projects in Laboratory Trials phase (+1 vs. Jun-26)
- ✓ 32 projects in Industrial Trials phase (+4 vs. Jun-26)
- ✓ 17 projects in Commercial Relationship phase (+1 vs. Jun-26)
- ✓ Projects for customers across North America, Europe, Japan, Korea, Taiwan and China

Note: (a) Customer pipeline presents quantities on an un-risked basis and prices at a point in time arising from AEM's engagement with its customers through the qualification process. The resultant potential annual value reflects the total annual value of the pipeline (quantity x price/kg) on an un-risked basis comprising ~4,800 t of 4N+ HPA and ~1,500 t of 3N5 HPA

HPA Market Commentary

Commenting on the Company's current market conditions, AEM's Managing Director and CEO, Mick Adams said:

"I have just returned from a three-week visit to Asia, where I spent time with our customers alongside Daniele Fregonese, our SVP for Sales and Marketing, and I came away extremely encouraged by the way our engagement is deepening. Customers are undoubtedly concerned about a shortage of HPA supply and are turning to us for solutions. We are making particularly good progress in supplying products for advanced ceramics applications in the semiconductor sector and customers are showing strong interest in our recently launched ultra-low alpha HPA for thermal management applications."

Based on what AEM's sales team is experiencing on the ground, it is considered that the strong growth in the company's customer pipeline is being underpinned by the growing influence of several positive dynamics, all of which AEM expects to continue for the foreseeable future:

01 As already mentioned above, the expected HPA supply crunch is now becoming a reality. AEM has heard from many customers, particularly in Japan and China, that they are concerned about their ability to secure the level of supply they need from their existing supplier. Indeed, many have indicated that their supplier has informed them that it will be curtailing or limiting supply to them to focus on higher priority customers. With no material additional production capacity expected to come on stream worldwide for at least the next 18 months, AEM is well placed to continue to benefit from this situation as it continues to ramp up its production.

02 The semiconductor industry's transition to using HPA for certain applications in preference to the materials it has used previously is gathering pace, leading to burgeoning demand for HPA in three aspects of the industry particularly:

- **Certain tools** (etching chambers, capillaries, nozzles and electrostatic chucks) used to manufacture semiconductor chips have historically been manufactured using a lower grade (typically 2N8) alumina. For chips destined for the most demanding applications, such as artificial intelligence and robotics, the industry is starting to replace this alumina with 4N+ HPA because it delivers higher production yields. AEM is engaged with many customers that manufacture the components impacted by this change, and already in a commercial relationship with one.

- **Managing the heat** generated by the chips that deliver the computational power required by AI, robotics and other computationally heavy applications is a key limiting factor on increased performance. Heat management systems previously based on the use of spherical high-purity silica as a heat conduction medium are now transitioning to the use of spherical HPA because of its significantly higher capacity to conduct heat. There is an added challenge in using HPA in this application: unlike the grades generally available in the market, the HPA needs to contain extremely low levels (less than one part per billion) of uranium and thorium to avoid the alpha particle radiation they emit interfering with chip operation. AEM is engaged with all the world's five major producers of spherical HPA, which are showing particular interest in AEM's ability to provide them with 4N+ HPA (in both gamma and alpha crystalline forms) that meets their low uranium and thorium requirements.

- **Package size and density** are increasing, again driven by the need for higher computational power, which is creating manufacturing challenges. One is preventing packages from warping as they are cured. TSMC has led the way in developing a manufacturing system for its Chip-on-Wafer-on-Substrate (CoWoS) packages that uses translucent ceramic carriers made from 4N+ HPA to support the packages temporarily while they are being cured and preventing them from warping. Samsung is now developing similar technology. AEM is engaged with 10+ customers that are producing or developing translucent ceramic carriers for this application and already in a commercial relationship with two.

This strong growth in demand for HPA from the semiconductor industry looks set to continue. Yole Group expects the global semiconductor device market to reach approximately US$1.6 trillion in 2026 and to approach US$2 trillion as early as 2027, driven by artificial intelligence infrastructure, high-bandwidth memory, advanced packaging and data centre investment.[3] Importantly for AEM, Yole expects that growth to come overwhelmingly from value rather than volume, forecasting device revenue growth of approximately 19% a year from 2024 to 2031 against wafer demand growth of approximately 4%[3], a shift towards more complex, higher-specification manufacturing of precisely the kind that consumes HPA. The capital behind that demand is committed: Amazon, Alphabet, Microsoft and Meta have collectively guided to approximately US$720–745 billion of capital expenditure in calendar 2026[4,5,6,7], and Dell'Oro Group expects global data centre capital expenditure to approach US$1 trillion this year on its way to US$1.7 trillion by 2030.[8]

03 Changing geopolitics have been driving, and look set to continue to drive change in the global patterns of HPA demand:

- China's determination to develop a home-grown semiconductor industry that is no longer dependent on technology transfer from the USA is creating a demand for ultra-high-purity alumina that its domestic HPA suppliers cannot service. AEM's engagement with customers in China has been strengthening markedly throughout 2026.

- The ongoing efforts by Western governments and manufacturers to delink their supply chains from China are also having an impact. Although small today, the area in which this effect is most likely to be felt is in the supply chain for synthetic sapphire. This supply chain is currently dominated by China (and Russia, before its war with Ukraine), with most of the sapphire produced supplied to China's LED manufacturers. However, sapphire also has important uses in defence, for example in missile guidance systems, and the replenishment of Western arsenals after the wars in Ukraine and Iran, will create significant new demand for sapphire for which Western governments will not wish to depend on China. AEM is already engaged with European manufacturers of sapphire looking to exploit this trend, and in a commercial relationship with one, with a supply framework agreement in place.

AEM expects the above market dynamics all to become increasingly influential in making the market for HPA an attractive endeavour in which to participate and grow.

The tightening of the HPA market is increasingly evident in AEM's pricing, which has strengthened progressively across realised sales, the current order book and the forward customer pipeline. The average basket price achieved on HPA sales in the first half was US$25.4/kg. The average price across the order book stood higher at US$27.0/kg, and higher again across the customer pipeline, which rose from US$29.0/kg at the end of June to US$30.2/kg at the end of July. This progressive increase from realised sales, through the current order book, to the forward customer pipeline, reflects both the tightening supply-demand balance and the continued shift in AEM's product mix towards higher-purity 4N+ grades.

Market commentary — basis and sources. The market data in this section is drawn from independent third-party sources as listed below. AEM has not independently verified this information. Third-party forecasts are not AEM forecasts, are subject to revision by their publishers, and should not be relied upon as a guide to AEM's future performance. Each source listed was publicly available and was accessed on 24 August 2026.

Note: (a) Customer pipeline presents quantities on an un-risked basis and prices at a point in time arising from AEM's engagement with its customers through the qualification process. The resultant potential annual value reflects the total annual value of the pipeline (quantity x price/kg) on an un-risked basis comprising ~4,800 t of 4N+ HPA and ~1,500 t of 3N5 HPA.

1,2 Exchange rate of AUD/USD 0.69

3 Yole Group, "The semiconductor industry enters the trillion-dollar era", press release, 8 July 2026. https://www.yolegroup.com/press-release/the-semiconductor-industry-enters-the-trillion-dollar-era/

4 Amazon.com, Inc., "Amazon.com Announces Second Quarter Results", 30 July 2026. https://ir.aboutamazon.com/news-release/news-release-details/2026/Amazon-com-Announces-Second-Quarter-Results/

5 Alphabet Inc., second quarter 2026 results and earnings call, 22 July 2026. https://abc.xyz/investor/

6 Microsoft Corporation, fourth quarter FY2026 results and earnings call, 29 July 2026. https://www.microsoft.com/en-us/investor/earnings/fy-2026-q4/press-release-webcast. Microsoft's calendar 2026 figure of approximately US$175 billion reflects an extension of the estimated useful life of data centre and office building assets from 15 to 25 years, effective FY2027, which reclassifies a portion of future data centre leases from finance leases to operating leases and therefore reduces reported capital expenditure. Microsoft has stated that, excluding this effect, its calendar 2026 capital expenditure expectations are unchanged.

7 Meta Platforms, Inc., "Meta Reports Second Quarter 2026 Results", 29 July 2026. https://investor.atmeta.com/investor-news/press-release-details/2026/Meta-Reports-Second-Quarter-2026-Results/default.aspx

8 Dell'Oro Group, "AI Boom Drives Data Center Capex to $1.7 Trillion by 2030", press release, 11 February 2026, reporting its Data Center IT Capex 5 Year January 2026 Forecast Report. https://www.delloro.com/news/ai-boom-drives-data-center-capex-to-1-7-trillion-by-2030/

About Advanced Engineered Materials (AEM)

Advanced Engineered Materials Limited (ASX: AEM) is a producer of high purity alumina (HPA) with production facilities in Cap-Chat, Quebec, Canada. Following completion of a two-year capital works program, the Cap-Chat Plant is now commercially sized with a 2,000 tpa nameplate production capacity and moving to increase capacity to 3,000 tpa in 2026 (thereby completing the Stage 1 Expansion Project), with further expansion through to 6,000 tpa capacity from 2029 (Stage 2 Expansion Project). At 3,000 tpa full production rate, the Plant will be the 3rd largest HPA production asset outside of China.

<US$0.05/kWh

Renewable hydroelectric power supply at <US$0.05/kWh

~77%↓

Carbon emissions of approximately 2.8 tonnes CO_2e per tonne of HPA, ~77% lower than traditional alkoxide production methods

✓VERIFIED

Emissions profile verified in accordance with ISO 14064 (updated 2025)

✓ISO

Management systems certified to ISO 9001, ISO 14001 and ISO 45001

AEM expects to position within the lower half of the global HPA cost curve while delivering high purity, ex-China supply to customers seeking ESG-compliant sourcing.

ADVANCED
ENGINEERED MATERIALS

→ **Watch the latest video of the AEM HPA Commercial Plant from June 2026 here**

Get in Touch

If you would like to keep in touch with regular updates from AEM please follow us on

→**LinkedIn**

→**YouTube**

Visit our website "Investors" page for updates including a recent interview with AEM Executive Chairman Richard Seville and CEO Mick Adams and general information on HPA:

→**Website**

This announcement has been authorised for release by the Executive Chairman and the Managing Director and CEO of Advanced Engineered Materials Limited.

Investor and Media Enquiries

Emmanuel Duvnjak
+61 412 734 200 / eduvnjak@aemhpa.com

Cautionary Statement Regarding Forward-Looking Information

This announcement contains "forward-looking information" within the meaning of Australian securities laws. Forward-looking information includes, but is not limited to, statements regarding: expected sales of approximately 40 to 60 tonnes of HPA in the second half of 2026; the anticipated ramp-up of the 2,000 tpa 4N+ circuit to full production by the end of 2027, and ramp up of the 1,000 tpa 3N5+ circuit to full production by mid-2028; the expected conversion of the customer pipeline (approximately US$190 million of potential annual value, 6,300 tonnes at US$30.2/kg) into sales; the expectation of concluding a further three long-term supply framework agreements within the third quarter of 2026; the finalisation of arrangements with three new distributors; and expectations regarding HPA market conditions, supply constraints and demand growth.

Forward-looking information is frequently, but not always, identified by words such as "expects", "anticipates", "believes", "plans", "estimates", "intends", "will", "should" and similar expressions.
Actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking information. Readers are cautioned not to place undue reliance on forward-looking information, which speaks only as of the date of this announcement.

Material Factors and Assumptions
The forward-looking information in this announcement is based on a number of material factors and assumptions that AEM considers reasonable as at the date of this announcement, including assumptions that: existing qualified customers will complete tooling of new production capacity, and customers currently qualifying AEM's HPA will complete their qualification processes and move into commercial production, within the timeframes currently anticipated; outstanding and forecast orders will convert to sales at expected volumes, prices and margins; the customer pipeline will progress through the laboratory trial, industrial trial and commercial relationship phases at expected conversion rates; the Cap-Chat plant will operate at expected yields and throughput without material disruption; input, energy and labour costs and the AUD/USD exchange rate will remain within expected ranges; HPA market supply constraints and demand dynamics (including in the semiconductor and sapphire supply chains) will continue substantially as described; and AEM will have access to sufficient capital and will not be materially affected by adverse regulatory, geopolitical or trade developments.

Material Risk Factors
Actual results may differ materially from the forward-looking information as a result of material risk factors, including: delays in customer tooling, qualification or commercial adoption; failure of pipeline projects or orders to convert to sales at expected volumes, prices or timing; operational, technical or ramp-up difficulties at the Cap-Chat plant; changes in HPA supply and demand, competition and pricing; adverse movements in exchange rates or input costs; customer concentration and dependence on the semiconductor and sapphire supply chains; general economic, geopolitical, trade and regulatory conditions; and the additional risk factors described in the "Risk Factors" section of the Company's Prospectus dated 10 November 2025. This list is not exhaustive.

Financial Outlook / FOFI
Certain forward-looking information in this announcement, including the expected 2H 2026 sales range of approximately 40 to 60 tonnes and the customer pipeline's approximately US$190 million of potential annual value, may constitute a "financial outlook" or "future-oriented financial information" (FOFI) under applicable Australian securities laws. This financial outlook has been included for the purpose of providing readers with information regarding management's current expectations and estimates relating to AEM's commercial progress and anticipated production ramp-up, and readers are cautioned that this information may not be appropriate for any other purpose. The financial outlook is based on the assumptions set out above under "Material Factors and Assumptions", is limited to the periods for which the information can reasonably be estimated and has been prepared using accounting policies consistent with those AEM expects to use in preparing its historical financial statements for the relevant periods.

Updating Policy
Except as required by applicable securities laws and the ASX Listing Rules, AEM does not undertake, and disclaims, any obligation to update or revise any forward-looking information, financial outlook or FOFI, whether as a result of new information, future events or otherwise. AEM's policy is to update previously disclosed material forward-looking information and financial outlooks in its subsequent continuous disclosure filings where there is a material change from the previously disclosed information, by disclosing the events and circumstances that caused the change and the expected differences from the prior disclosure.