

Alpha HPA



LOI development in focus

Key Points

- LOI coverage set to increase towards 100% of name-plate capacity by end-CY25; key to de-risking project.
- Revenue from Stage 1 HPA production building; 1H rev of \$56k 2x pcp. We expect further acceleration in 2H.
- Large earnings changes in FY25/26 driven by reclassification of govt grant income to balance sheet (from P&L) in our forecasts.

- 1H result highlighted **growing sales from Stage 1** prod'n with rev of \$56k 2x pcp; our expectation is this accelerates significantly in 2H. **NPAT loss of -\$16m** vs our prior expectation for \$5m profit; the key driver of variance is the treatment of grant income as PPE contra asset directly through balance sheet (we previously modelled as other income). Our earnings D/Gs in FY25/26 reflect reclassification to align with grant treatment under the capital approach.
- **Capex of \$22m** in 1H well below our \$85m fct with slower capital deployment on Stage 2 than we expected as Alpha targets financial close on govt. debt packages by mid-CY25 (contractual close Dec-24). We expect capex lift in 2H. **Project development remains on track** with earthworks completed on time/budget. Alpha remains well funded with **cash balance** (including term deposits) of **\$149m**.
- We wrote in our [initiation](#) that **increasing LOI coverage was key to de-risking the Alpha investment thesis**. Our confidence in DFS pricing deck in particular is correlated to the LOI coverage level. Recent product development in the semiconductor space (incl signing of an LOI & commercial sales) is promising in this regard. We have **slightly reduced the product pricing haircut** we apply as a result. Alpha has also indicated that it expects LOI coverage to increase >10kt by end-CY25 and sales/binding contracts >1kt on same time frame (Fig 10). This is a signal of Alpha's confidence in progressing through LOI milestones.

Earnings changes: FY25/26 EPS -175%/-34% due to grant income recognition in balance sheet (other income prior). FY27-30 EPS +0.5-2% on small lift in price assumptions for HPA products and chg in mix.

Valuation: TP of \$1.42 slightly down from \$1.43 on a lift in the risk free rate applied in our DCF.

Catalysts: Additional LOIs and conversion into sales contracts; construction milestones, FID on next phase of Sapphire roll-out (1HCY25).

Investment Thesis and Recommendation

OP. Strong demand signals from semiconductor sector with LOI development building in this end-market. Additional LOI coverage remains key catalyst for stock along with Stage 2 construction milestones. Accelerating Stage 1 rev a useful proof point for Alpha products.

Chemicals Australia



Ben
Wedd, CFA



John
Purtell

A4N AU	Outperform
Price (at 27 Feb 2025)	AUD0.87
12-month target	AUD1.42
12-month TSR (%)	63.2
Volatility Index	High
Market Cap (Local) (m)	989
Market Cap (USD) (m)	624
30-day avg turnover (AUD) (m)	0.7

Investment Fundamentals

Year end 30 Jun	2024A	2025E	2026E	2027E
Revenue (m)	6.3	0.5	2.7	104.0
EBITDA (m)	(24.4)	(36.8)	(39.9)	31.6
EBIT (m)	(26.3)	(40.0)	(43.1)	2.0
Reported profit (m)	(24.9)	(32.5)	(38.7)	(9.5)
Adjusted profit (m)	(24.9)	(32.5)	(38.7)	(9.5)
EPS adj (¢)	(2.5)	(2.9)	(3.4)	(0.8)
EPS adj growth (%)	NM	(12.7)	(18.3)	76.0
PER adj (x)	NM	NM	NM	NM
Total DPS (¢)	0.0	0.0	0.0	0.0
Total div yield (%)	0.0	0.0	0.0	0.0
Franking (%)	NM	NM	NM	NM
ROA (%)	(8.4)	(12.9)	(8.6)	0.3
ROE (%)	(10.1)	(14.0)	(16.5)	(3.8)

A4N AU rel Small Ordinaries performance, & rec history



Source: FactSet, Macquarie Research, Feb 2025 (all figures in AUD unless noted, TP in AUD)

Figure 1 - Healthy margins at full ramp-up underpinned by cost position

Revenue (A\$m)	FY24a	FY25e	FY26e	FY27e	FY28e	FY29e	FY30e	FY31e	FY32e	FY33e	FY34e	FY35e	FY36e	FY37e	FY38e	FY39e	FY40e
HPA	0	0	2	92	235	344	383	397	407	366	342	325	333	342	350	359	368
Alpha Sapphire	0	0	1	12	32	49	61	65	67	68	69	71	72	73	75	76	78
Corporate/other	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Group revenue (A\$m)	6	1	3	104	267	393	444	462	474	434	412	396	405	415	425	435	446
EBITDA (A\$m)																	
HPA	0	0	2	26	152	248	283	294	303	261	236	217	223	229	236	243	250
Alpha Sapphire	0	0	0	7	21	31	39	41	42	43	44	45	46	47	47	48	49
Corporate/other	(24)	(37)	(42)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(3)	(3)
Group EBITDA (A\$m)	(24)	(37)	(40)	32	170	278	320	334	343	302	277	259	266	273	281	289	296
EBITDA margin (%)																	
HPA	nm	nm	nm	28.2%	64.6%	72.3%	73.9%	74.2%	74.4%	71.2%	68.8%	66.6%	66.8%	67.1%	67.3%	67.6%	67.8%
Alpha Sapphire	nm	nm	nm	64.4%	64.0%	63.7%	63.4%	63.3%	63.4%	63.4%	63.4%	63.4%	63.4%	63.4%	63.4%	63.4%	63.4%
Group EBITDA (%)	nm	nm	nm	30.3%	63.8%	70.7%	72.0%	72.2%	72.4%	69.5%	67.3%	65.4%	65.6%	65.8%	66.1%	66.3%	66.5%

Source: Macquarie Research, February 2025

- Alpha reported **1H25 NPAT of -\$15.8m loss** compared to our estimate for a **\$4.9m profit**; key variance to our fct is treatment of c\$19m in govt grant monies which have not been included as income (we included as other income). Stage 1 operating/marketing costs of \$7.7m below our \$9.0m and corp costs of \$12.2m above our \$7.5m. **Net interest income of \$4.1m well above our \$1.4m.**
- Sales from stage 1 of \$71k above our \$52k; represents 1,500kg of sales of HPA/sapphire products (cUS\$10k from sapphire). 2Q saw **cash collection on 1H HPA/sapphire sales** from Stage 1 facility of **\$53k**, an improvement on prior Q (1Q cash receipts of \$5k). 1H cash receipts of \$71.1k vs pcp of \$32.1k. Alpha notes that ramp-up of stage 1 facility through the 1H seeing **significant increase in sales and test order activity.**
- Net cash applied to development of First Project totalled \$57.3m** in 1H. This incl cash payments re Stage 1 operations of \$35.4m and capex of \$21.8m and compares to our **assumption of -\$94m**. Capex deployment slower than we had anticipated as Alpha targets financial close on NAIF/EFA \$400m debt package by mid-CY25 (contractual close Dec-24). We expect capex spend to lift post-financial close of debt facilities. **Project development remains on track** with earthworks completed on time/budget. Alpha remains well funded with **cash balance** (including term deposits) of **\$148.8m** vs our \$140.0m.
- Per previous announcements, Alpha has agreed on an **LOI with a market-leading semiconductor supply firm** for supply of 100t of HPA products into thermal interface filler material. LOI includes **commercial volumes** of alumina tri-hydrate from full-scale Stage 2 plant **from CY27** (potential uplift later in Mar Q with rising demand from semiconductor end customers).
- In lithium-ion battery space, **Alpha received a technical acceptance letter** from an anode manufacturer representing technical qualification; confirmed significant improvements in battery safety & reduction in thermal runaway. Alpha expects to progress commercial negotiations through 2H.
- Per update in December 2024, **sapphire FID** has been **delayed into CY25** (by 30 June) with ongoing work regarding market development. Alpha is seeing demand signals from semiconductor space to provide sapphire as a substrate for next-gen power semis.

Figure 2 - Specialty Chems trade on high-single to low-double digit FY1 EV/EBITDA multiples; we apply a 25% discount given Alpha is pre full-scale production

CompCo	PE				EV/EBITDA				EV/EBIT			
	FY0	FY1	FY2	FY3	FY0	FY1	FY2	FY3	FY0	FY1	FY2	FY3
Dupont	20.0	18.6	16.8	15.2	12.2	12.0	11.1	10.4	15.0	14.7	13.4	12.7
Element Solutions	18.1	18.1	15.7	13.6	14.5	14.7	13.3	12.1	15.6	15.9	14.3	13.1
Entegris	34.5	31.2	24.4	21.2	20.2	19.1	16.3	15.3	25.3	24.1	20.7	18.6
Rogers Corp	31.3	36.0	21.2	21.2	14.8	14.8	11.7	11.7	35.2	30.9	18.2	18.2
Materion Corp	17.4	16.6	14.3	NA	11.7	10.6	9.7	NA	17.0	14.9	13.7	NA
Quaker Houghton	18.6	17.3	14.7	12.8	9.9	9.6	8.9	8.2	14.0	13.8	12.2	10.8
Eastman Chemical Company	12.4	11.6	10.4	9.3	8.4	8.5	7.9	7.4	11.7	11.7	10.8	10.0
Ingevity	13.9	11.0	9.4	7.7	7.9	7.8	7.3	6.7	10.8	10.8	9.8	8.5
Orica	22.8	21.4	18.0	16.3	9.2	8.2	7.1	6.7	14.4	12.6	10.5	9.8
Specialty Chems average	21.0	20.2	16.1	14.7	12.1	11.7	10.4	9.8	17.7	16.6	13.7	12.7

Source: FactSet, Macquarie Research, February 2025

Figure 3 - Our DCF gives value per share of \$1.48

DCF		DCF Assumptions	
PV cashflows (FY25-34) (\$m)	145	Risk free rate	4.3%
PV terminal value (\$m)	1,404	Equity risk premium	5.0%
Enterprise value (\$m)	1,549	Beta	1.6
		Cost of equity	12.1%
Net debt (FY24a) (\$m)	(186)	Cost of debt (pre tax)	6.1%
Leases (FY24a) (\$m)	1	Cost of debt (post tax @ 30%)	4.2%
Equity value (\$m)	1,734	Equity weight	70%
FFPOWA #	1,172		
Price per share (A\$/sh)	\$1.48	WAAC	9.7%

Source: Macquarie Research, February 2025

Figure 4 - Our SoP gives value per share of \$1.35. Average of SoP & DCF yields TP of \$1.42

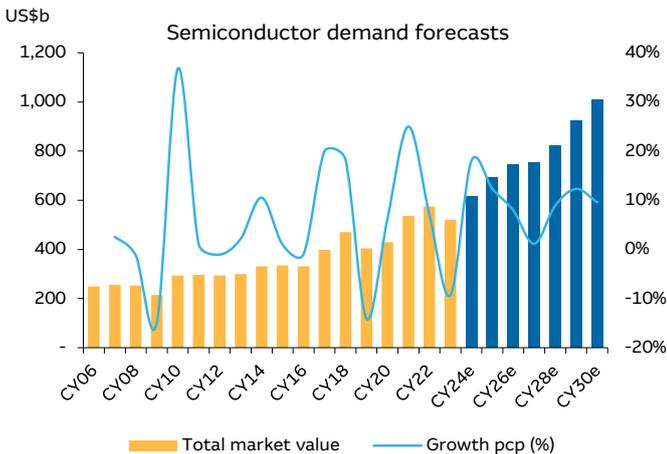
Sum of Parts	FY30e EBITDA	FY1 multiple	Valuation	Comment
HPA	283	8.8x	2,500	EV/EBITDA Spec Chems multiple disc by 25%
Sapphire	39	11.0x	430	25% uplift to multiple
Corporate	(2)	8.8x	(19)	
Total EBITDA	320	9.1x	2,911	
Less net debt (FY30e)			158	
Leases			0	
Equity value			2,754	
# shares			1,172	
FY29 equity value per share			\$2.35	
Current equity value per share			\$1.35	FY29 SoP value discounted to 12m TP
DCF			\$1.48	
Average SoP & DCF			\$1.42	

Source: Macquarie Research, February 2025

Semiconductor demand tailwinds accelerating

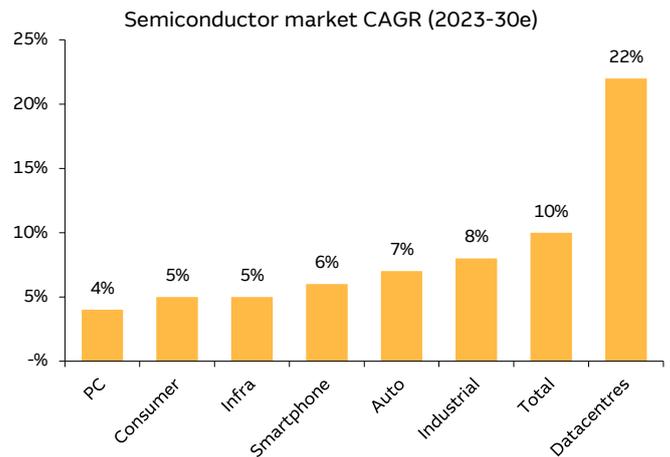
- The semiconductor sector has seen excitement with significant growth over the next decade signalled from tech majors (data-centres, AI infrastructure, etc). In particular, **power semiconductors** and more broadly semis used in **data-centres** have seen demand expectations rise. Power semis require a large amount of electricity for cooling; products that enable **better thermal management** stand to benefit from sector growth.
- Semiconductors are an important end-market for Alpha and the HPA industry in general. Alumina is widely used as a **thermal interface "filler" (TIF)** in semiconductor packaging given its thermal conducting properties. Thermal conductivity describes a material's ability to conduct heat. **Alumina offers superior thermal conductivity** compared to many other ceramic materials. The purity requirements of the alumina used in the TIF are exacting, particularly with regard to radioactive impurities such as uranium or thorium where emission of small amounts of radiation can interfere with chip switching and the function of semiconductors. Alpha's product has no radioactive impurities so is well suited to this application.
- **Alpha's recent signing of an LOI with a TIF manufacturer for supply of ATH is a good demonstration of its product in this regard.**

Figure 5 - Semiconductor growth outlook underpinned by demand for datacentres and AI



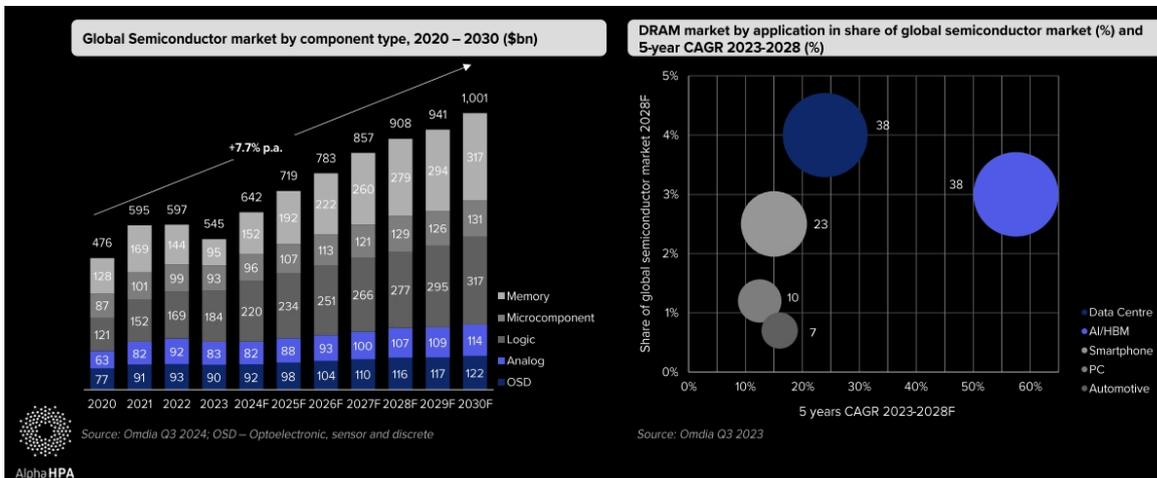
Source: Kepler Cheuvreux, Macquarie Research, February 2025

Figure 6 - Growth outlook underpinned by demand for datacentres and AI



Source: Kepler Cheuvreux, Macquarie Research, February 2025

Figure 7 - Demand for semiconductors exposed to datacentres and AI set to grow significantly to the end of the decade

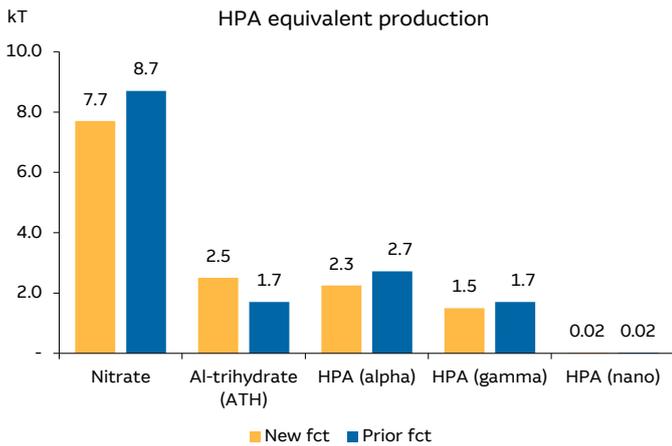


Source: Alpha company presentation, February 2025

Updated pricing and volume deck

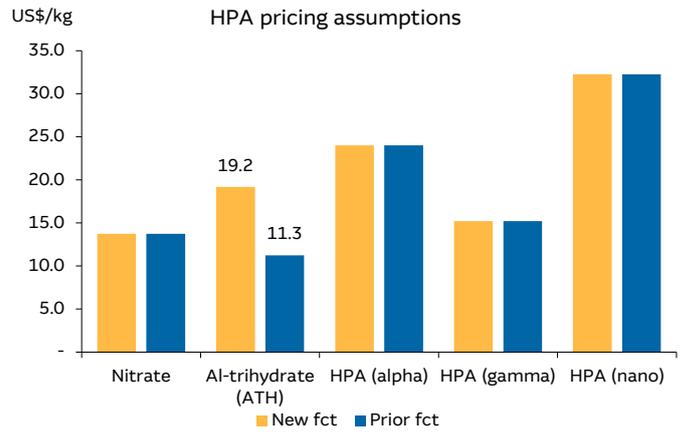
- Following recent **market development** with prospective **semiconductor** customers, Alpha has seen **significant demand for its alumina tri-hydrate (ATH)** product as an input into power semiconductor thermal interface material manufacture. These demand signals suggest the mix of end-products at Stage 2 full ramp-up may skew in favour of ATH production vs traditional alpha-/gamma-phase HPA.
- The ATH production pathway is shorter vs eg alpha-phase HPA (ATH is akin to an intermediate product) and does not require calcination, sintering or milling steps. Thus **lifting production of ATH at the expense of later stage products provides a cost benefit** and improves unit economics all else equal. The alumina-nitrate product enjoys the most favourable unit economics considering its production early on in the HPA manufacturing process.
- In our revised forecasts, we assume **ATH production of 2.5kt** at full ramp-up (vs our prior 1.7kt) with small decreases across alpha- & gamma-phase HPA and a 1kt decrease in the nitrate product. Alpha's production schematic is modularised and offers significant engineering flexibility allowing the company to make adjustments in production volumes to meet any changes in demand outlook across market segments.

Figure 8 - We assume higher Al-trihydrate (ATH) production with demand from semiconductor sector



Source: Macquarie Research, February 2025

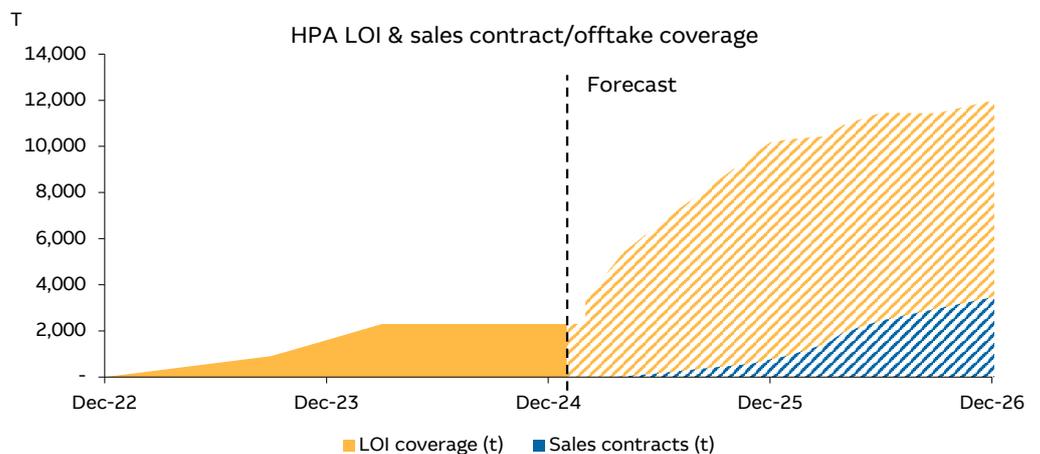
Figure 9 - We have lifted our pricing assumption for ATH following material sales orders



Source: Company announcement, Macquarie Research, February 2025

We have **increased our pricing assumption** on the **ATH** product following extensive development in this product by Alpha and with a **lift in achieved pricing** (LOI & Stage 1 sales) vs the DFS.

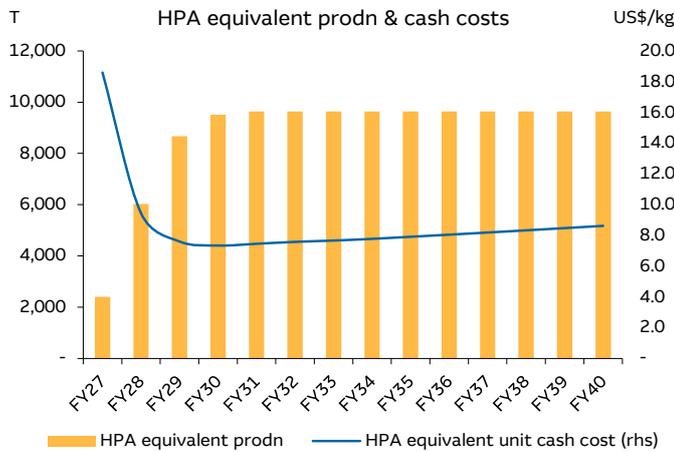
Figure 10 - Alpha expects a significant step change in production covered by LOI over CY25/26



Source: Company data, Macquarie Research, February 2025

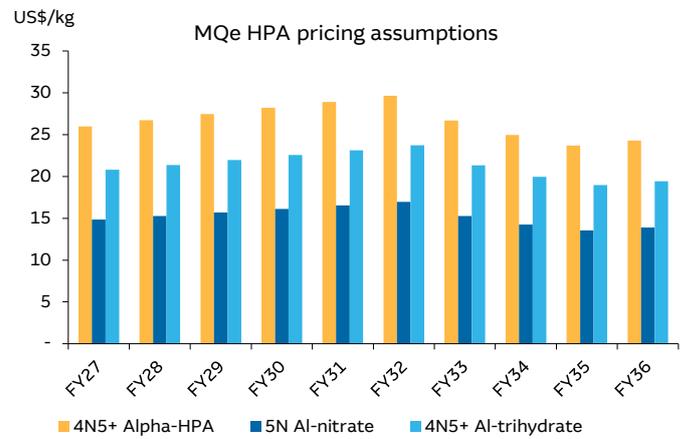
Key charts

Figure 11 - We estimate HPA equivalent cash cost of US\$7.3/kg in FY30



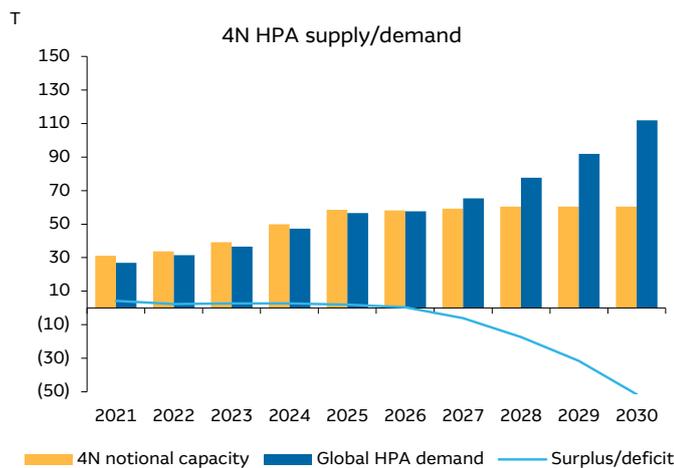
Source: Macquarie Research, February 2025

Figure 12 - Our key HPA pricing assumptions range from US\$16-28/kg in FY30



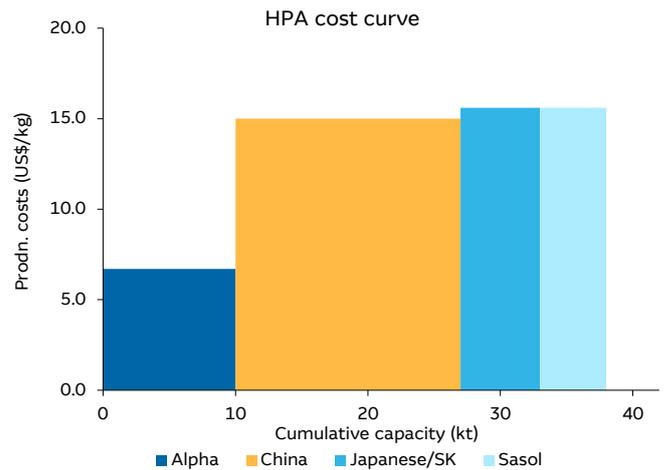
Source: Macquarie Research, February 2025

Figure 13 - 4N HPA demand projected to grow rapidly driven by adoption across EV, semiconductor and LED industries



Source: CRU Global, Macquarie Research, February 2025

Figure 14 - Alpha set to be the lowest cost producer



Source: CRU, Macquarie Research, February 2025

Figure 15 - Segmental earnings changes; significant % changes in near-term due to law of small numbers and reclassification of grant income from P&L (other income) to direct balance sheet recognition. Small uplift in outer years

	FY25e - old	FY25e - new	ch (%)	FY26e - old	FY26e - new	ch (%)	FY27e - old	FY27e - new	ch (%)	FY28e - old	FY28e - new	ch (%)	FY29e - old	FY29e - new	ch (%)	FY30e - old	FY30e - new	ch (%)
HPA	0.1	0.3	nm	0.1	1.6	nm	26	26	2%	150	152	1%	247	248	1%	281	283	1%
Alpha Sapphire	0.0	0.0	(20%)	0.9	0.5	(50%)	7	7	-%	21	21	-%	31	31	-%	39	39	-%
Corporate/Other	(11.8)	(37.2)	(216%)	(23.0)	(42.0)	(83%)	(2)	(2)	-%	(2)	(2)	-%	(2)	(2)	-%	(2)	(2)	-%
Group EBITDA	(11.7)	(36.8)	(215%)	(22.0)	(39.9)	(81%)	31	32	1%	169	170	1%	276	278	1%	318	320	1%
D&A	3	3	(21%)	9	3	64%	27	30	10%	28	31	10%	31	34	10%	31	34	9%
EBIT	(14)	(40)	(179%)	(31)	(43)	(40%)	4	2	(52%)	140	139	(1%)	245	244	(1%)	286	285	(0%)
Net Interest expense	(2)	(7)	(200%)	(2)	(4)	(121%)	25	16	(33%)	26	27	5%	25	26	5%	24	25	5%
Pre-Tax Profit	(12)	(32)	(175%)	(29)	(39)	(34%)	(20)	(14)	29%	114	111	(3%)	220	218	(1%)	263	260	(1%)
Tax Expense	-	-	nm	-	-	nm	(14)	(5)	64%	25	25	0%	56	56	0%	68	68	0%
Net Profit	(12)	(32)	(175%)	(29)	(39)	(34%)	(10)	(10)	3%	86	86	0%	162	162	0%	192	192	0%

Source: Macquarie Research, February 2025

Alpha HPA								Key assumptions										
Profit & Loss								FY24a FY25e FY26e FY27e FY28e FY29e FY30e										
Revenue	\$m	6.5	0.5	2.7	104.0	266.7	392.9	444.0	4N+ Al-nitrate	US\$/kg	13.7	14.1	14.4	14.9	15.3	15.7	16.1	
% ch			-92%	425%	3711%	156%	47%	13.0%	4N+ Al-trihydrate	US\$/kg	19.2	19.7	20.2	20.8	21.4	22.0	22.6	
EBITDA	\$m	(24.4)	(36.8)	(39.9)	31.6	170.1	277.7	319.7	4N+ alpha-HPA	US\$/kg	24.0	24.6	25.3	26.0	26.7	27.5	28.2	
Depreciation	\$m	1.7	3.2	3.2	28.8	30.6	32.9	33.7	4N+ gamma-HPA	US\$/kg	15.2	15.6	16.0	16.5	17.0	17.4	17.9	
Amortisation	\$m	0.3	-	-	0.7	0.7	0.7	0.8	4N+ nano HPA	US\$/kg	32.3	33.1	33.9	34.9	35.9	36.9	37.9	
EBIT	\$m	(26.4)	(40.0)	(43.1)	2.0	138.8	244.0	285.2	Commodity prices (US\$)	Alumina Spot	US\$/t	399.4	621.5	528.3	490.0	490.0	474.2	449.9
Net Interest expense	\$m	(1.4)	(7.5)	(4.4)	16.4	27.5	26.4	25.1	Ammonia	US\$/st	280.0	293.0	308.5	296.0	303.4	311.1	318.9	
Pre-Tax Profit	\$m	(25.0)	(32.5)	(38.7)	(14.4)	111.3	217.6	260.2	AUDUSD	x	0.67	0.64	0.64	0.67	0.68	0.68	0.69	
Tax Expense	\$m	-	-	-	(4.9)	25.1	55.7	68.1	HPA Pricing (A\$)	4N+ Al-nitrate	A\$/kg	20.6	22.0	22.7	22.3	22.6	23.0	23.3
Net Profit	\$m	(25.0)	(32.5)	(38.7)	(9.5)	86.2	161.8	192.1	4N+ Al-trihydrate	A\$/kg	28.9	30.7	31.8	31.1	31.6	32.1	32.7	
Outside equity interests	\$m	-	-	-	-	-	-	-	4N+ alpha-HPA	A\$/kg	36.1	38.4	39.8	38.9	39.5	40.2	40.8	
Net Abn/Extra	\$m	-	-	-	-	-	-	-	4N+ gamma-HPA	A\$/kg	22.9	24.4	25.2	24.7	25.0	25.5	25.9	
									4N+ nano HPA	A\$/kg	48.5	51.6	53.5	52.3	53.1	54.0	54.9	
Reported Earnings	\$m	(25.0)	(32.5)	(38.7)	(9.5)	86.2	161.8	192.1	Commodity prices (US\$)	Alumina Spot	A\$/t	600.3	969.5	832.0	734.1	724.0	693.7	651.6
Adjusted Earnings	\$m	(25.0)	(32.5)	(38.7)	(9.5)	86.2	161.8	192.1	Ammonia	A\$/st	420.9	457.1	485.8	443.4	448.4	455.1	461.9	
Gross Cashflow	\$m	(23.0)	(29.3)	(35.5)	20.1	117.5	195.5	226.5	HPA Equivalent Production									
EPS (Adj/dil)	c	(2.5)	(2.9)	(3.4)	(0.8)	7.4	13.8	16.4										
EPS growth	%		nm	nm	nm	nm	87.7	18.7										
CFPS	c	(2.4)	(2.7)	(3.1)	1.7	10.0	16.7	19.3										
CFPS Growth	%		nm	nm	nm	nm	485.9	66.3										
EBITDA/Sales	%	nm	nm	nm	30.3	63.8	70.7	72.0										
EBIT/Sales	%	nm	nm	nm	1.9	52.0	62.1	64.2										
Revenue Growth	%		nm	nm	nm	156.5	47.3	13.0										
EBIT Growth	%		nm	nm	nm	nm	75.8	16.9										
Cashflow Analysis								Valuation										
Pre-tax Profit								DCF										
Pre-tax Profit	\$m	(25.0)	(32.5)	(38.7)	(14.4)	111.3	217.6	260.2	PV fct cashflows	\$m	145.2							
Depreciation & Amortisation	\$m	2.0	3.2	3.2	29.6	31.3	33.7	34.4	PV terminal value	\$m	1,403.8							
Tax Paid	\$m	-	-	-	4.9	(25.1)	(55.7)	(68.1)	Enterprise value	\$m	1,549.1							
Gross cashflow	\$m	(23.0)	(29.3)	(35.5)	20.1	117.5	195.5	226.5	Net debt (FY27e)	\$m	(186.4)							
Changes in working capital	\$m	4.8	17.5	(24.8)	(36.8)	(11.9)	(31.7)	(2.9)	Equity value	\$m	1,735.5							
Other	\$m	(4.2)	(18.7)	0.1	-	-	-	-	EFPOWA	#	1,171.8							
Operating Cashflow	\$m	(22.4)	(30.5)	(60.3)	(16.7)	105.7	163.8	223.7	Equity value (FY27e)	A\$/sh	\$1.48							
Acquisitions	\$m	-	-	-	-	-	-	-	Equity value (@ 27/02/25)	A\$/sh	\$1.48							
Capex - Plant & Equip.	\$m	(22.9)	(80.0)	(390.0)	(57.8)	(70.0)	(43.5)	(40.3)	Sum of Parts									
Asset Sales	\$m	-	-	-	-	-	-	-	HPA	\$m		282.9	8.8x	2,500.2				
Other	\$m	(2.2)	34.8	(10.1)	(3.7)	(4.7)	(5.4)	(5.7)	Sapphire	\$m		38.9	11.0x	430.0				
Investing cashflow	\$m	(25.1)	(45.2)	(400.1)	(61.5)	(74.7)	(48.9)	(46.0)	Corporate	\$m		(2.1)	8.8x	(18.8)				
Dividend (ordinary)	\$m	-	-	-	-	(62.2)	(96.0)	(96.0)	Group EBITDA	\$m		319.7	9.1x	2,911.4				
Equity raised	\$m	213.8	-	75.0	-	-	-	-	Net debt (FY27e)	\$m				157.7				
Borrowings	\$m	3.0	-	320.0	90.0	-	-	-	Equity Value	\$m				2,753.7				
Other	\$m	(0.2)	(0.2)	29.8	-	-	-	-	EFPOWA	#				1,171.8				
Financing cashflow	\$m	216.6	(0.2)	424.8	90.0	-	(62.2)	(96.0)	Equity value (FY27e)	A\$/sh				\$2.35				
Net Change in cash/debt	\$m	169.0	(75.9)	(35.6)	11.8	31.0	52.7	81.6	Equity value (@ 27/02/25)	A\$/sh				\$1.35				
Balance Sheet								DCF assumptions										
Cash	\$m	189.6	114.4	78.9	90.6	121.6	174.3	255.9	Risk free rate									
Receivables	\$m	8.0	4.3	20.0	36.4	42.7	57.0	56.6	Equity risk premium									
Inventories	\$m	2.7	3.6	20.0	36.4	42.7	55.0	56.6	Beta									
Investments	\$m	2.2	3.8	3.8	3.8	3.8	3.8	3.8	Cost of equity									
Property, plant & equipment	\$m	59.0	113.4	467.9	500.0	542.5	556.1	565.8	Cost of debt (pre tax)									
Intangibles	\$m	49.8	52.7	52.7	52.6	53.4	55.0	56.9	Cost of debt (post tax @ 30%)									
Other Assets	\$m	2.0	16.5	46.5	46.5	46.5	46.5	46.5	Equity weight									
Total Assets	\$m	313.3	308.8	689.7	766.2	853.1	947.7	1,042.1	WAAC									
Payables	\$m	8.0	22.7	30.0	26.0	26.7	21.6	20.0										
Royalty liability	\$m	46.0	49.0	49.0	49.0	49.0	49.0	49.0										
Short Term Debt	\$m	0.2	0.6	0.6	0.6	0.6	0.6	0.6										
Long Term Debt	\$m	3.0	3.0	323.0	413.0	413.0	413.0	413.0										
Other Liabilities	\$m	8.9	17.1	34.4	34.4	34.4	34.4	34.4										
Total Liabilities	\$m	66.1	92.4	437.0	523.0	523.6	518.6	517.0										
Shareholders Funds	\$m	349.0	350.5	425.5	425.5	425.5	425.5	425.5										
Minority Interests	\$m	-	-	-	-	-	-	-										
Total Shareholders Equity	\$m	247.2	216.4	252.8	243.3	329.5	429.1	525.1										
Total Funds employed	\$m	313.3	308.8	689.8	766.3	853.2	947.7	1,042.1										
DIVISIONAL EBITDA								Average SoP & DCF										
HPA		0.0	0.3	1.6	26.1	151.6	248.3	282.9										
Alpha Sapphire		-	0.0	0.5	7.5	20.6	31.4	38.9										
Corporate/Other		(24.4)	(37.2)	(42.0)	(2.0)	(2.0)	(2.1)	(2.1)										
Group EBITDA		(24.4)	(36.8)	(39.9)	31.6	170.1	277.7	319.7										

Source: Macquarie Research, February 2025

Key Risks to Investment Thesis

- Alpha is a pre-production, pre-earnings project and key risks are centred on ramp-up of stage 2 facility / ability to produce HPA to generate rev/earnings. Key to sales delivery is increasing LOI coverage from current ~25% coverage towards 100%. Ramp-up of project is reliant on key management personnel including CEO and COO; should these KMP leave, this would put success of project at risk. For a more fulsome discussion of risks, refer to Key Risks section of our [initiation report](#).

Company Description

Alpha HPA is developing the HPA First Project in Queensland, Australia. High Purity Alumina (HPA) is a specialty material used in a range of industries; HPA is characterised by purity level >99.99% (4N+). The First Project is set to be the lowest cost HPA plant globally enabled by Alpha's innovative solvent extraction-based process route which lends it cost of production >50% below incumbents and enables it to unlock new fast growing markets e.g. batteries, semiconductors and synthetic sapphire.

Key Quant Findings

The quant model currently holds a strong negative view on Alpha HPA. The strongest style exposure is Growth, indicating this stock has good historic and/or forecast growth. Growth metrics focus on both top and bottom line items. The weakest style exposure is Profitability, indicating this stock is not efficiently converting investments to earnings; proxied by ratios like ROE or ROA.

Macquarie Alpha Model: Key rankings

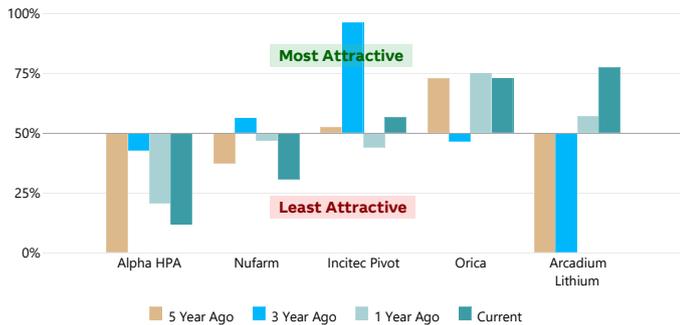
The Macquarie Quant's flagship Alpha model is a dynamic multi-factor model based on a staple of quant factors such as value, momentum, revisions, quality, and risk.

	Global	Market (Country)	Sector
	Whole Universe	Australia & NZ	Chemicals
Macquarie Alpha Model	15677/17772	328/371	886/981
Fundamental (Consensus) *	1/17772	1/371	1/981

* based on Total Shareholder Return = Consensus Price target / Current Price

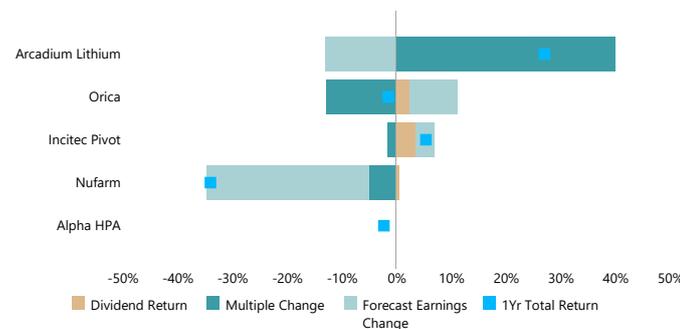
Current and Historical Alpha Model Rank

The chart shows the Macquarie Alpha model market ranking against the company's peers and over recent history.



Drivers of Stock Return

Breakdown of 1-year total return (local currency) into returns from dividends, changes in forward earnings estimates and the resulting change in earnings multiple.



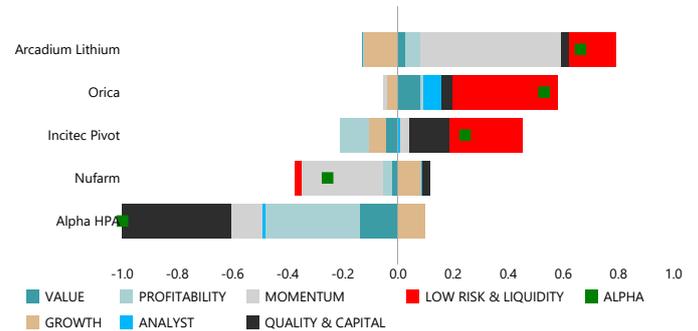
Alpha Model Decomposition

The Macquarie Alpha is decomposed into its sector and market relative factor & styles exposures (a higher/better percentile is coded in green, whilst lower in red).

Factors / Styles	Percentile relative to		Core factors in definition
	sectors (/981)	market (/371)	
ALPHA	10%	12%	Built from the styles below
VALUE	9%	13%	Book, CF, Yield, Earnings Multiples
ANALYST	81%	44%	Revisions (Earnings, Recommendations)
MOMENTUM	49%	37%	Price Momentum
GROWTH	94%	86%	EPS, Sales (Forecast, Historic)
PROFITABILITY	10%	4%	ROE, Margin, Asset Turnover
QUALITY	3%	13%	Accruals, Earn Stability, Cash Conversion
CAPITAL	1%	2%	Investment/Capex, Net share issuance
LIQUIDITY	48%	1%	Size, Turnover, Analyst Coverage
LOW RISK	40%	46%	Beta, Volatility, Earn.Cert, Leverage
TECHNICAL	13%	13%	MACD, RSI, Bollinger, Williams R, etc

Factors driving the Alpha Model vs peers

For the comparable firms this chart shows the key underlying styles and their contribution to the current overall raw Alpha score.



Macquarie Style Returns over last year

Recent performance to Macquarie style factors

	Monthly Factor Long-Short Returns for												Last 5 Years (ann)	Last 10 Years (ann)
	Jan - 25	Dec - 24	Nov - 24	Oct - 24	Sep - 24	Aug - 24	Jul - 24	Jun - 24	May - 24	Apr - 24	Mar - 24	Feb - 24		
Australia & NZ	Jan - 25	Dec - 24	Nov - 24	Oct - 24	Sep - 24	Aug - 24	Jul - 24	Jun - 24	May - 24	Apr - 24	Mar - 24	Feb - 24	Last 5 Years (ann)	Last 10 Years (ann)
ALPHA	1%	0%	8%	0%	-8%	5%	9%	9%	3%	-7%	-2%	-9%	15%	15%
VALUE	0%	0%	6%	-5%	-6%	1%	10%	8%	-3%	-5%	-1%	-9%	9%	7%
ANALYST	5%	1%	1%	6%	0%	2%	-3%	-1%	3%	-1%	3%	4%	9%	7%
MOMENTUM	1%	0%	8%	5%	-4%	6%	8%	5%	5%	-5%	0%	-1%	24%	20%
GROWTH	4%	2%	7%	0%	4%	3%	-4%	2%	7%	4%	1%	1%	10%	7%
PROFITABILITY	3%	-1%	1%	-3%	-5%	2%	5%	7%	-1%	-5%	-3%	-11%	4%	7%
QUALITY	-1%	1%	4%	-4%	-6%	2%	9%	11%	-1%	-5%	-1%	-2%	6%	8%
CAPITAL	2%	1%	6%	-4%	-4%	4%	9%	9%	-4%	-3%	-2%	-2%	10%	10%
LIQUIDITY	1%	-2%	3%	2%	-4%	3%	4%	6%	3%	-2%	-5%	-1%	5%	8%
LOW RISK	3%	0%	6%	-2%	-8%	1%	7%	5%	0%	-5%	4%	-12%	3%	3%

Source (all charts): FactSet, Refinitiv, and Macquarie Quant. For more details on the Macquarie Alpha model or for more customised analysis and screens, please contact the Macquarie Global Quantitative Team: maccapequitiesresearchquantglobal@macquarie.com. Explanation for items on this page can be found at <https://www.macquarieinsights.com/rp/dr/rp/OTUyMzg1>

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Recommendation definitions	Volatility index definition	Financial definitions
<p>Macquarie – Asia and USA Outperform – expected return >10% Neutral – expected return from -10% to +10% Underperform – expected return <-10%</p> <p>Macquarie – Australia/New Zealand Outperform – expected return >10% Neutral – expected return from 0% to 10% Underperform – expected return <0%</p> <p>During periods of share price volatility, recommendations and target prices may occasionally and temporarily be inconsistent with the above definitions.</p> <p>Recommendations – 12 months 12-month target – Expected share price in 12 months Valuation – The company's estimated fair value share price based on the disclosed valuation methodology Note: Quant recommendations may differ from Fundamental Analyst recommendations</p>	<p>This is calculated from the volatility of historical price movements.</p> <p>Very high – highest risk – Stock should be expected to move up or down 60–100% in a year – investors should be aware this stock is highly speculative.</p> <p>High – stock should be expected to move up or down at least 40–60% in a year – investors should be aware this stock could be speculative.</p> <p>Medium – stock should be expected to move up or down at least 25–40% in a year.</p> <p>Low – stock should be expected to move up or down at least 15–25% in a year. * Applicable to select stocks in Asia/Australia/NZ</p> <p>Note: expected return is reflective of a Medium Volatility stock and should be assumed to adjust proportionately with volatility risk</p>	<p>All "Adjusted" data items have had the following adjustments made: Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests</p> <p>EPS = adjusted net profit / efpowa* ROA = adjusted ebit / average total assets ROA Banks/Insurance = adjusted net profit / average total assets ROE = adjusted net profit / average shareholders funds Gross cashflow = adjusted net profit + depreciation *equivalent fully paid ordinary weighted average number of shares</p> <p>All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).</p>

Recommendation proportions for quarter ending 31 Dec 2024

	AU/NZ	Asia	USA	
Outperform	59.71%	65.18%	66.98%	(for global coverage by Macquarie, 1.50% of stocks followed are investment banking clients)
Neutral	34.17%	22.25%	30.19%	(for global coverage by Macquarie, 1.35% of stocks followed are investment banking clients)
Underperform	6.12%	12.57%	2.83%	(for global coverage by Macquarie, 0.00% of stocks followed are investment banking clients)

Company-Specific Disclosures

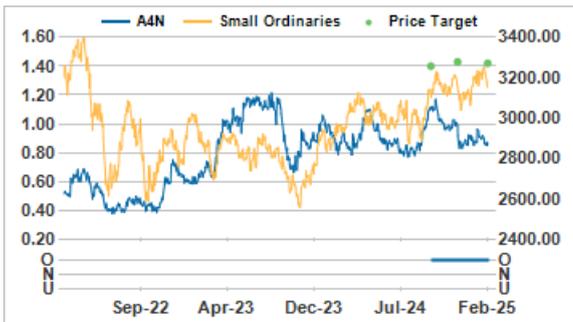
Company Name	Disclosure
Alpha HPA (A4N AU) Outperform 12-month target: AUD1.42 - Average DCF/SoP Valuation: AUD 1.42 - Average DCF/SoP Price: AUD0.87	Macquarie Group Limited together with its affiliates beneficially owns 1% or more of the equity securities of Alpha HPA Ltd. A Macquarie analyst(s) involved with the preparation of this research has, in the past 12 months, visited material operations of Alpha HPA Ltd. In connection with such a visit, the company may have furnished local transportation and/or accommodation, which requires authorisation in adherence with Macquarie policy requirements. Macquarie managed or co-managed a public offering of securities of Alpha HPA Ltd in the past 12 months, for which it received compensation. Macquarie Group is a substantial securities holder of Alpha HPA Ltd

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Recommendation history

Company name	Date	Recommendation	Target price
Alpha HPA (A4N AU)	27-Feb-2025	Outperform	AUD 1.42
	11-Dec-2024	Outperform	AUD 1.43
	3-Oct-2024	Outperform	AUD 1.40



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