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# Alpha HPA Ltd (A4N)

## Q2 FY25 - Progressing on all fronts

**Recommendation**  
**Buy** (unchanged)  
**Price**  
**\$0.875**  
**Valuation**  
**\$2.00** (unchanged)  
**Risk**  
**Speculative**

**Sector**  
**Materials**

**Expected Return**

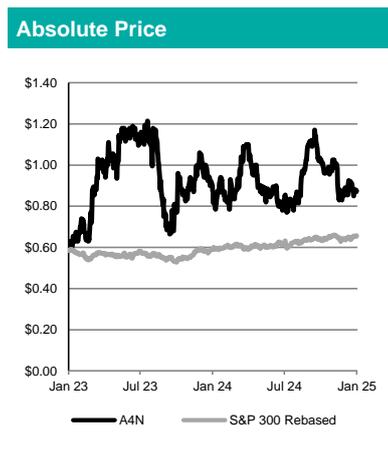
Capital growth	<b>129%</b>
Dividend yield	<b>0%</b>
Total expected return	<b>129%</b>

**Company Data & Ratios**

Enterprise value	<b>\$848m</b>
Market cap	<b>\$994m</b>
Issued capital	<b>1,136m</b>
Free float	<b>80%</b>
Avg. daily val. (52wk)	<b>\$2.1m</b>
12 month price range	<b>\$0.76-\$1.18</b>

**Price Performance**

	(1m)	(3m)	(12m)
Price (A\$)	0.85	1.04	0.92
Absolute (%)	2.9	-15.5	-4.9
Rel market (%)	0.2	-18.3	-16.6



### Positive market signs & early price indications continue

A4N's quarterly update points to good progress with the HPA First Project Stage 2 development, ongoing positive end-user engagement and pricing indications ahead of the company's May 2024 Definitive Feasibility Study assumptions. At Gladstone, earthworks have been completed in preparation for civil works, the offsite manufacture of key long lead items is also underway. End user engagement has accelerated, particularly from the semiconductor sector. High purity alumina hydrate (ATH) sales orders for semiconductor applications have been at prices of around US\$25/t (compared with DFS assumption US\$15/t).

At 31 December 2024, A4N had \$149m cash and \$3m debt, having incurred quarterly operating cash outflows of \$10.6m and capex of \$21.4m.

### Commercial agreements progressing

During the quarter A4N signed a Letter of Intent with a market leader in the semiconductor thermal interface sector, including commercial volumes for Stage 2. A4N has also received a Technical Acceptance Letter (qualification) from a leading lithium-ion battery anode manufacturer for its UltraCoat process; this process is now being tested by the manufacturer's key battery customers. These are two of A4N's most advanced commercial agreements and should provide a catalyst for additional offtake LOIs over 2025; A4N has several draft agreements outstanding.

### Investment view – Speculative Buy, Valuation \$2.00/sh

A4N's proprietary technologies produce ultra-high purity aluminium compounds with applications in high-technology growth sectors including the manufacturing of lithium-ion batteries, LED displays/lighting and semiconductors. The HPA First Project Stage 1 supported technical and commercial validation; Stage 2 is in development for ramp-up in 2026. A4N is also establishing a downstream synthetic sapphire glass subsidiary.

Our valuation of \$2.00/sh is unchanged.

**Earnings Forecast**

Year ending 30 June	2024a	2025e	2026e	2027e
Sales (A\$m)	7	4	10	142
EBITDA (A\$m)	(24)	(19)	3	75
NPAT (reported) (A\$m)	(25)	(36)	(49)	(7)
NPAT (adjusted) (A\$m)	(25)	(36)	(49)	(7)
EPS (adjusted) (eps)	(2.7)	(3.2)	(4.3)	(0.6)
EPS growth (%)	na	na	na	na
PER (x)	-32.3x	-27.6x	-20.2x	-139.5x
FCF Yield (%)	-6%	-25%	-26%	-5%
EV/EBITDA (x)	-34.8x	-43.9x	330.4x	11.4x
Dividend (eps)	-	-	-	-
Yield (%)	0%	0%	0%	0%
Franking (%)	-	-	-	-
ROE (%)	-16%	-16%	-23%	-3%

SOURCE: BELL POTTER SECURITIES ESTIMATES

# Q2 FY25 - Progressing on all fronts

## Key observations from the quarterly

At 31 December 2024, A4N had \$149m cash and \$3m debt, having incurred quarterly operating cash outflows of \$10.6m and capex of \$21.4m.

- **Quarterly sales prices well ahead of DFS estimates:** A4N has provided details on product sales during the December quarter and open orders yet to be filled. The data indicates that the semiconductor sector is the dominant source of early product demand, particularly from Japan, and that order prices for ATH have averaged more than US\$20/kg (averaging around US\$25/kg). This price compares with A4N's May 2024 Definitive Feasibility Study which assumed ATH prices of US\$15/kg across around 16% of volumes. A4N's total sales for the December 2024 quarter were \$53,341, and we calculate an average price of US\$30/kg across all products.
- **HPA First Project Stage 2 development on schedule:** Bulk earthworks preparing the site for civils were completed on time and on budget. Engineering design is ongoing for commencement of bulk site civil works. Permitting has progressed with the final Queensland Government approval (amendment to the Material Change of Use approval) and Commonwealth Government Work Health and Safety accreditation received. Offsite fabrication of key long lead items is underway.
- **Debt funding Contractual Close & potential Production Tax Credit:** A4N announced Contractual Close for \$400m in debt funding with lenders the Northern Australia Infrastructure Facility and Export Finance Australia (under the Australian Government's Critical Minerals Facility). The funding includes a \$320m Construction Facility with 11-year tenor and an \$80m Cost Overrun Facility with 5-year tenor. A4N also noted that the introduction to the Australian Parliament of the Future Made in Australia (Production Tax Credit and Other Measures) Bill 2024 could have a material positive impact on Stage 2's financial returns.
- **Semiconductor sector demand accelerating:** A4N is observing strong HPA demand growth from the Artificial Intelligence, data centre and power semiconductor sectors. A4N's HPA First Project process continues to produce products with superior properties and performance compared with incumbent products and processes. The two key applications for HPA in the semiconductor market are:
  1. **Thermal interface materials (semiconductor packaging)** – Leveraging HPA's superior thermal conductivity. Faster processing power demanded by key semiconductor markets is driving higher heat outputs and thermal management requirements. For context, approximately 40% of data centre electricity requirements is for cooling purposes.
  2. **Chemical Mechanical Planarization (polishing)** – Leveraging HPA's high abrasive performance and inert chemical properties compared with incumbent CMP slurries.

In particular, A4N's solvent extraction process removes all radio-nuclide impurities, providing a distinct advantage over incumbent supply. The HPA First Project Stage 1 facility is implementing several flow sheet changes to increase production of high purity Alumina hydrate (ATH) over a shorter timeframe to address increased demand from the semiconductor sector.

- **Semiconductor offtake Letter of Intent signed:** The agreement is with a market leader in the semiconductor thermal interface sector which includes commercial volumes from the Stage 2 HPA First Project (from 2027) and an intent to scale-up orders from the current Stage 1 project over 2025-26. Additional LOIs with end-users in

the semiconductor sector are in negotiation. A4N's process also has the flexibility to develop bespoke specifications; a new product for a semiconductor end user in South Korea has recently been developed and is undergoing trials.

- **Anode market leader Technical Acceptance Letter in relation to UltraCoat's thermal runaway protection:** The Technical Acceptance Letter represents formal product qualification in the application of high purity aluminium-hydroxides (A4N's UltraCoat process) to anode surfaces to prevent thermal runaway (lithium-ion battery fires). Next steps are for battery OEMs to test this process. The UltraCoat capability has also been extended to lithium-ion pouch cells to further broaden this market.
- **Direct Lithium Extraction sector advancements:** Ongoing positive market reaction in relation to A4N's amorphous nanocrystalline, high purity ATH for use in DLE sorbents. A4N reiterated this product's advantage in the sorbent production process (easier) and high lithium extraction rates (around twice that of incumbent products). A4N has filled a number of orders for this purpose.
- **Alpha Sapphire Phase B FID on track for mid-2025:** A4N's expansion from two existing synthetic sapphire growth units to 50 units at a new site (the Phase B expansion) remains on track for FID by mid-2025. Engineering and cost modelling is ongoing. A4N recently deferred the FID of Phase B by around six months. The company has received demand from semiconductor manufacturers in next generation Gallium-Nitride (GaN)-on sapphire semiconductor platforms. This emerging market has somewhat offset a slower than expected ramp-up in demand from the microLED display sector. Phase B financing (\$30m) under the QIC Critical Minerals & Battery Technology Fund (QICMBTF) terms have been updated such that funding will now be available until 30 September 2025 and is subject to Alpha Sapphire's Board reaching FID by 30 June 2025.
- **Alpha Polaris (Canada) advances:** A4N and Orica Ltd (ORI, not rated) have formally commenced concept studies for a potential Canadian HPA First Project facility.

## Next steps & value catalysts

### HPA FIRST PROJECT

- **Ongoing:**
  1. Customer qualification, offtake LOIs and sales agreements. In particular, announcements relating to nascent applications for A4N's products including the UltraCoat battery safety technology, semiconductor applications and DLE sorbent demand for high purity ATH.
  2. Development updates relating to the HPA First Project Stage 2.
- **Mid-2026:** HPA First Project Stage 2 commissioning.
- **Late-2026:** HPA First Project Stage 2 first production.

### ALPHA SAPPHIRE

- **1H-2025:** Securing a site for the Phase B rollout of the Ebner-Fametec agreement to 50 synthetic sapphire growth units.
- **1H 2025:** Phase B FID and ordering of growth units, noting that this project is already considered to be fully funded.
- **Ongoing:** Customer qualification and sales.

## Changes to earnings estimates

We do not expect A4N to be in commercial production until beyond our forecast period (i.e. from FY28). As such, the earnings outlook and changes outlined below are off a low, non-commercial base and therefore have no impact on our valuation or investment thesis.

**Table 1 - Changes to earnings estimates**

Year ending 30 June	2025e	2026e	2027e	2025e	2026e	2027e	2025e	2026e	2027e
Production tpa	350	350	3,332	350	350	3,332	0%	0%	0%
Revenue A\$m	14	22	156	4	10	142	-74%	-52%	-9%
EBITDA A\$m	-7	8	83	-19	3	75	190%	-67%	-10%
NPAT A\$m	-27	-46	1	-36	-49	-7	33%	7%	NA
EPS Acps	-2	-4	0	-3	-4	-1	33%	7%	NA
DPS Acps	0	0	0	0	0	0	-	-	-
Valuation	2.00			2.00			0%		

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

## Product Sales completed within the December quarter

**Table 2 - December 2024 product sales**

Customer sector	Jurisdiction	Product	Currency	kg	price/kg	Invoiced amount
Semiconductor	Japan	HPA Powder - milled	USD	100	30	\$3,000
Semiconductor	Japan	HPA Powder - milled	USD	400	30	\$12,000
Semiconductor	Japan	HPA Powder - milled	USD	10	35	\$350
Semiconductor	Japan	HPA Powder - milled	USD	10	30	\$300
Semiconductor	Japan	HPA Powder - milled	USD	10	30	\$300
Semiconductor	US	Nano HPA Powder	USD	40	35	\$1,400
Ceramics	Germany	HPA Sintered Pucks	EUR	50	47	€ 2,350
LED	Germany	Freight Charge	EUR	1	N/A	€ 900
LED	Germany	HPA Powder - milled	EUR	500	22.5	€ 11,250
Ceramics	US	HPA Powder - unmilled	USD	20	48.45	\$969
Chemicals	US	High Purity Al-Nitrate	USD	30	50	\$1,500
Research	Australia	Freight Charge	AUD	1	25	\$25
Research	Australia	Gamma HPA Powder - Milled	AUD	2	50	\$100
<b>Total volume, A\$ sales &amp; A\$price</b>				<b>1,174</b>	<b>45</b>	<b>\$53,341</b>
<b>Implied US\$/kg @ average FX</b>					<b>US\$30/kg</b>	

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

## Open Product sales Orders as at date of this Report

**Table 3 - Open Product sales Orders as at date of this Report**

Customer sector	Jurisdiction	Product	Currency	kg	price/kg	Order
Sapphire Optics	Hong Kong	Sapphire	USD	boule		\$10,585
Medical	US	Gamma HPA Powder - Milled	USD	15	48	\$727
Chemicals	US	High Purity Al-Nitrate	USD	1	400	\$400
Chemicals	US	High Purity Al-Nitrate	USD	1	50	\$50
Ceramics	China	Freight	USD	1	N/A	\$100
Ceramics	China	Nano HPA Powder	USD	5	45	\$225
DLE Catalysts	Canada	Amorphous ATH	USD	80	15	\$1,200
Semiconductor	Japan	ATH Powder - milled	USD	250	25	\$6,250
Semiconductor	Japan	ATH Powder - milled	USD	250	25	\$6,250
Semiconductor	Japan	ATH Powder - milled	USD	500	25	\$6,250
Semiconductor	Japan	ATH Powder - unmilled	USD	100	23	\$2,300
Semiconductor	Japan	ATH Powder - milled	USD	400	25	\$10,000
Semiconductor	Japan	ATH Powder - milled	USD	600	25	\$15,000
Semiconductor	Japan	ATH Powder - milled	USD	1,000	25	\$25,000
Semiconductor	Japan	ATH Powder - milled	USD	1,000	25	\$25,000
Semiconductor	Japan	ATH Powder - milled	USD	500	25	\$12,500
Semiconductor	Japan	ATH Powder - milled	USD	500	25	\$12,500
Semiconductor	Japan	ATH Powder - milled	USD	20	20	\$400
Semiconductor	South Korea	ATH Powder - milled	USD	20	20	\$400
Semiconductor	South Korea	Gamma HPA - X milled	USD	20	20	\$400
<b>Total volume, US\$ price &amp; order value</b>			<b>USD</b>	<b>5,263</b>	<b>US\$24/kg</b>	<b>\$124,952</b>

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

## DFS product mix &amp; pricing assumptions

Table 4 - May 2024 DFS product mix &amp; price assumptions

Product mix	tpa	Proportion	HPAe tpa
5N Purity Aluminium Nitrate	3,500	34%	509
4N5+ Purity Alpha Phase Alumina powder & tablets	3,200	31%	3,200
4N5+ Purity Gamma Phase Alumina	2,000	19%	2,000
4N5+ Purity Alumina Trihydrate (ATH)	1,700	16%	1,112
4N5+ Purity Nano-Alumina	30	0%	30
<b>Total</b>	<b>10,430</b>		<b>6,851</b>
US\$/kg	A4N price discovery case	Mid case	Independent pricing case
5N Purity Aluminium Nitrate	18.50	21.75	25.00
4N5+ Purity Alumina	32.00	35.65	39.30
4N5+ Purity Alumina for pucks	25.00	30.00	35.00
4N5+ Purity Gamma Alumina	20.30	23.90	27.50
4N5+ Purity Alumina Trihydrate	15.00	17.20	19.40
4N5+ Purity Nano-Alumina	43.00	46.50	50.00
<b>Weighted average product price</b>	<b>24.11</b>	<b>29.64</b>	<b>34.14</b>
Approximate revenue	A4N price discovery case	Mid case	Independent pricing case
5N Purity Aluminium Nitrate	64.8	76.1	87.5
4N5+ Purity Alumina	102.4	114.1	125.8
4N5+ Purity Gamma Alumina	40.6	47.8	55.0
4N5+ Purity Alumina Trihydrate	25.5	29.2	33.0
4N5+ Purity Nano-Alumina	1.3	1.4	1.5
<b>Total US\$m</b>	<b>US\$251m</b>	<b>US\$309m</b>	<b>US\$356m</b>
<b>Total A\$m</b>	<b>A\$359m</b>	<b>A\$442m</b>	<b>A\$509m</b>

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

## A4N product summaries

Table 5 - A4N product summaries

Product	Specifications	Applications
Ultra-High Purity Alumina (Al <sub>2</sub> O <sub>3</sub> ) Powder TM	+4N5 purity alpha & gamma HPA	Cathode coatings, sapphire glass growth, specialty ceramics
Ultra-High Purity Alumina (Al <sub>2</sub> O <sub>3</sub> ) Tablets TM	+4N5 purity	Synthetic sapphire growth
Ultra-High Purity Nano-Alumina (Al <sub>2</sub> O <sub>3</sub> ) Powder TM	+4N purity with particle size down to 50nm	Chemical Mechanical Planarization (CMP) slurries & LED nanophosphors
Ultra Boehmite (Al-O-OH) Powder TM	+4N5 purity	Sol-gel applications CMP slurries & vaccine adjuvants
5N Ultra Aluminium Nitrate Al(NO <sub>3</sub> ) <sub>3</sub> .9H <sub>2</sub> O TM	+5N purity (highest commercially available)	Li-ion electrode coatings, micro-LED phosphors, Yttrium Aluminium Garnet laser crystals, CMP slurry oxidants
5N Ultra Aluminium Sulfate Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> .16H <sub>2</sub> O TM	+5N purity (highest commercially available)	Li-ion cathode materials (NCA, NCMA & NMA chemistries)
5N Ultra-High Purity Alumina Tri-Hydrate Al(OH) <sub>3</sub> TM	+4N5 purity (world leading purity)	Ultra-pure ceramics, DLE sorbents
Ultra Sapphire (Al <sub>2</sub> O <sub>3</sub> ) TM	Low carbon synthetic sapphire	LED substrate, optics

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

# Valuation summary

Our base case A4N valuation of \$2.00/sh (unchanged) is based on:

- **Timing:** HPA First Project development over 2025-26 and first production from mid-2026.
- **Pricing:** Average pricing of US\$27.60/kg (US\$27,600/t) compared with A4N's market outreach seeing average prices of around US\$24/kg and an independent consultant assessments at US\$34/kg.
- **Throughput:** HPA First Project Stage 2 producing 10,430tpa of combined aluminium products.
- **Opex:** US\$7.55/kg compared with the DFS estimate of US\$6.70/kg.
- **Capex & capital requirements:** Capital cost of \$553m, in line with the DFS estimate.

Steady state HPA First Project annual EBITDA under these assumptions is ~\$300m.

- **Alpha Sapphire:** Stand-alone project consisting of 50 sapphire growth units generating around \$45m annual EBITDA. We have applied a 25% risk discount to this project.

**Table 6 - Risked & diluted valuation summary**

Product price scenario	1	2	3
		Base case	
Average basket price US\$/kg	24	27	31
<b>HPA First Project</b>			
Unrisked NPV (10% discount rate) \$m	1,449	1,823	2,198
Risk discount %	10%		
Risked NPV (10% discount rate) \$m	1,304	1,641	1,978
Other (Canada potential, 80% risked) \$m	290	365	440
Alpha Sapphire (50 growth units, 25% risked)	196	196	196
Other (downstream & other) \$m	65	82	99
Corporate costs \$m	-50		
<b>Enterprise value \$m</b>	<b>1,805</b>	<b>2,234</b>	<b>2,662</b>
Net debt / (cash) \$m	-146		
<b>Equity valuation (risked, undiluted) \$m</b>	<b>1,951</b>	<b>2,380</b>	<b>2,808</b>
Diluted shares on issue m	1,141		
<b>Equity valuation (risked, diluted) \$/sh</b>	<b>1.70</b>	<b>2.00</b>	<b>2.40</b>

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

## Fully funded: FID supported by debt; grants & \$175m equity

A4N's Board approved a positive FID for the HPA First Stage 2 development. The final funding stack for the \$553m DFS capital expenditure estimate provides circa \$640m in liquidity and comprises:

- **NAIF & EFA funding of \$320-400m:** As announced on 17 April 2024. This funding includes a Construction Facility of \$320m with a tenor of 11 years; and Cost Overrun Facility of \$80m with a tenor of 5 years. It is jointly funded by the Northern Australia Infrastructure Facility (NAIF) and Export Finance Australia (EFA)
- **Commonwealth and Queensland State government grants of at least \$67m:** Previously announced grants as outlined in the following table.
- **May 2024 \$180m equity placement & share purchase plant:** A4N completed a \$175m equity placement concurrent with FID. This placement was upsized from the initial \$120m announced placement on significant demand from existing and new institutional shareholders. The placement was conducted at \$0.90/sh. A subsequent Share Purchase Pan raised a further \$5.3m.

**ALPHA SAPPHIRE PHASES A & B ARE ALSO FULLY FUNDED**

Existing cash and an additional previously announced \$30m project financing from the QIC Critical Minerals and Battery Technology Fund (QCMBTF) supports Phases A and B of A4N's Alpha Sapphire Project.

- **Phase A – 2 Units:** The initial installation of two Ebner-Fametec synthetic sapphire growth units at the HPA First Project in Gladstone to support product qualification.
- **Phase B – 50 Units:** The installation of 50 Ebner-Fametec synthetic sapphire growth units (i.e. an additional 48 units) at a new Queensland-based site. A4N has estimated that Phase B has the potential to generate EBITDA of US\$25.8-34.6m.

The broader agreement with Ebner-Fametec contemplates further roll-out phases including Phase C to a total of 100 growth units (A4N estimate EBITDA of US\$51.6-69.3m) and Nova Phase for up to an additional 1,000 growth units. A4N expect that Phase C could be funded from internal cash flows.

**Table 7 - A4N government grants**

Source	Program	Purpose	Announced	\$m
Commonwealth Government	Modern Manufacturing Initiative	HPA First Project	16/03/2022	45
Commonwealth Government	Critical Minerals Accelerator Initiative	Stage 1 - PPF	28/04/2022	16
Queensland Government	Industry Partnership Program	HPA First Project	5/04/2023	22
<b>Total grants</b>				<b>82</b>
Stage 1 grants				16
Stage 2 grants				67
<b>Alpha Sapphire</b>	<b>QCMBTF</b>	<b>Alpha Sapphire Phase A&amp;B</b>	<b>28/09/2023</b>	<b>30</b>

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

# Alpha HPA Ltd summary

## Company description

A4N's HPA First Project in Gladstone Queensland is aiming to supply high-purity aluminium-based products to the lithium-ion battery, light emitting diode (LED) and semiconductor manufacturing sectors. The project's proprietary technology is expected to disrupt incumbent HPA production through delivering ultra-high purity products with significantly lower unit costs.

In May 2024, A4N took FID and announced a Final Definitive Feasibility Study for the HPA First Project Stage 2. The study outlined aluminium product output of 10,430tpa with a project capital cost of \$553m generating steady-state EBITDA of \$255-403m at product prices ranging US\$24-34/kg.

The Stage 2 project was preceded by a smaller commercial-scale Stage 1 facility at the Gladstone site. This facility was commissioned in 2022 and has provided valuable process and product validation to potential offtake customers and funding participants.

The HPA First Project is a solvent extraction process using an aluminium chemical feedstock purchased on globally traded markets. Orica Ltd (ORI) and A4N have executed a definitive agreement for ORI's supply of process reagents and for by-product offtake.

## ALPHA SAPPHIRE: A4N'S DOWNSTREAM SUBSIDIARY

In March 2023, A4N announced it had entered a LOI with Austrian technology providers Ebner Industrieofenbau GmbH (Ebner) and Ebner subsidiary Fametec GmbH (Fametec) to establish sapphire glass manufacturing in Australia using A4N's HPA products and Ebner-Fametec's sapphire growth technology. In June 2023, the groups announced a potential expansion and the staged rollout to over 1,000 units. This business is housed under A4N's wholly owned subsidiary Alpha Sapphire.

In September 2023, Alpha Sapphire was awarded up to \$30m in project funding to accelerate the rollout of an initial 50 sapphire growth units under the LOI with Ebner Fametec. The initial two sapphire growth units were commissioned in May 2024.

## Investment view – Speculative Buy, Valuation \$2.00/sh

A4N's proprietary technologies produce ultra-high purity aluminium compounds with applications in high-technology growth sectors including the manufacturing of lithium-ion batteries, LED displays/lighting and semiconductors. The HPA First Project Stage 1 supported technical and commercial validation; Stage 2 is in development for ramp-up in 2026. A4N is also establishing a downstream synthetic sapphire glass subsidiary.

# Investment risks

Risk to an investment in A4N include, but are not limited to:

- **Commodity price and exchange rate fluctuations.** The future earnings and valuations of development and operating assets and companies are subject to fluctuations in underlying commodity prices and foreign currency exchange rates.
- **Technology:** Projects may be reliant on commercialisation of new production processes and methodologies which have yet been proven on a large scale. Technology may be replicated by competitors resulting in a loss of market share.
- **Infrastructure access.** Projects are reliant upon access to transport and pipeline infrastructure. Access to infrastructure is often subject to contractual agreements, permits and capacity allocations. Agreements are typically long-term in nature. Infrastructure can be subject to outages as a result of weather events or the actions of third party providers.
- **Operating and capital cost fluctuations.** Markets for raw material inputs and labour can fluctuate and cause significant differences between planned and actual operating and capital costs. Key operating costs are linked to commodity and labour markets. Companies are also exposed to costs associated with future land rehabilitation.
- **Sovereign risks.** Companies' assets are subject to the sovereign risk of the country of location and may also be exposed to the sovereign risks of major offtake customers.
- **Regulatory changes.** Changes to the regulation of infrastructure and taxation (among other things) can impact the earnings and valuations of companies.
- **Environmental risks.** Companies are exposed to risks associated with environmental degradation as a result of their production processes.
- **Operating and development risks.** Companies' assets are subject to risks associated with their operation and development. Development assets can be subject to approvals timelines or weather events, causing delays to commissioning and commercial production.
- **Occupational health and safety (OH&S) risks.** Companies are exposed to OH&S risks.
- **Funding and capital management risks.** Funding and capital management risks can include access to debt and equity finance, maintaining covenants on debt finance, managing dividend payments and managing debt repayments.
- **Merger/acquisition risks.** Risks associated with value transferred during merger and acquisition activity.
- **Impact of pandemic infection such as Coronavirus disease (COVID-19).** This may have an adverse impact on the macro economic factors, including the mobility of labour, which can impact asset valuations.

Table 8 - Financial summary

Date	29/01/25					Bell Potter Securities							
Price	AS/sh 0.875					Stuart Howe (showe@bellpotter.com.au, +61 3 9235 1856)							
Valuation	AS/sh 2.00												
<b>PROFIT AND LOSS</b>													
Year ending 30 June	Unit	2023a	2024a	2025e	2026e	2027e	<b>FINANCIAL RATIOS</b>						
Revenue	\$m	2	7	4	10	142	<b>VALUATION</b>						
Expenses	\$m	(17)	(31)	(23)	(8)	(68)	EPS	Ac/sh	(2)	(3)	(3)	(4)	(1)
<b>EBITDA</b>	\$m	<b>(15)</b>	<b>(24)</b>	<b>(19)</b>	<b>3</b>	<b>75</b>	EPS growth (Acps)	%	na	na	na	na	na
Depreciation & amortisation	\$m	(1)	(2)	(9)	(36)	(58)	PER	x	-46.8x	-32.3x	-27.6x	-20.2x	-139.5x
EBIT	\$m	(16)	(26)	(28)	(34)	16	DPS	Ac/sh	-	-	-	-	-
Net interest expense	\$m	0	1	(8)	(16)	(23)	Franking	%	0%	0%	0%	0%	0%
Profit before tax	\$m	(16)	(25)	(36)	(49)	(7)	Yield	%	0%	0%	0%	0%	0%
Tax expense	\$m	-	-	-	-	-	FCF/share	Ac/sh	(2.3)	(5.2)	(22.2)	(22.4)	(4.7)
<b>NPAT (reported)</b>	\$m	<b>(16)</b>	<b>(25)</b>	<b>(36)</b>	<b>(49)</b>	<b>(7)</b>	FCF yield	%	-3%	-6%	-25%	-26%	-5%
<b>NPAT (adjusted)</b>	\$m	<b>(16)</b>	<b>(25)</b>	<b>(36)</b>	<b>(49)</b>	<b>(7)</b>	EV/EBITDA	x	-56.1x	-34.8x	-43.9x	330.4x	11.4x
<b>CASH FLOW STATEMENT</b>													
Year ending 30 June	Unit	2023a	2024a	2025e	2026e	2027e	<b>LIQUIDITY &amp; LEVERAGE</b>						
<b>OPERATING CASH FLOW</b>							Net debt / (cash)	\$m	(21)	(187)	65	319	372
Receipts from customers	\$m	0	0	8	12	116	Net debt / Equity	%	-37%	-76%	31%	142%	171%
Payments to suppliers and employees	\$m	(15)	(24)	(26)	(9)	(62)	Net debt / Net debt + Equity	%	-58%	-308%	24%	59%	63%
Tax paid	\$m	-	-	-	-	-	Net debt / EBITDA	x	1.4x	7.6x	-3.4x	124.2x	5.0x
Net interest	\$m	0	1	(8)	(16)	(23)	EBITDA / net int expense	x	35.4x	17.7x	-2.5x	0.2x	3.2x
Other	\$m	4	-	-	-	-	<b>PROFITABILITY RATIOS</b>						
<b>Operating cash flow</b>	\$m	<b>(11)</b>	<b>(22)</b>	<b>(26)</b>	<b>(13)</b>	<b>31</b>	EBITDA margin	%	-932%	-373%	-533%	24%	52%
<b>INVESTING CASH FLOW</b>							EBIT margin	%	-993%	-403%	-777%	-320%	11%
Capex	\$m	(24)	(29)	(221)	(308)	(84)	Return on assets	%	-26%	-15%	-12%	-10%	-1%
Acquisitions	\$m	-	-	-	-	-	Return on equity	%	-30%	-16%	-16%	-23%	-3%
Other	\$m	16	4	(4)	67	-	<b>ASSUMPTIONS - HPA FIRST PROJECT</b>						
<b>Investing cash flow</b>	\$m	<b>(8)</b>	<b>(25)</b>	<b>(226)</b>	<b>(241)</b>	<b>(84)</b>	<b>Year ending 30 June</b>	<b>Unit</b>	<b>2023a</b>	<b>2024a</b>	<b>2025e</b>	<b>2026e</b>	<b>2027e</b>
<b>FINANCING CASH FLOW</b>							<b>Stage 1</b>						
Debt proceeds/(repayments)	\$m	(0)	1	130	260	-	Production	t	196	351	350	350	350
Dividends paid	\$m	-	-	-	-	-	<b>Stage 2</b>						
Proceeds from share issues (net)	\$m	23	216	-	-	-	Production	t	-	-	-	-	2,982
Other	\$m	-	(0)	-	-	-	Average price received	US\$/kg	-	-	-	-	27.2
<b>Financing cash flow</b>	\$m	<b>23</b>	<b>217</b>	<b>130</b>	<b>260</b>	<b>-</b>	Average price received	A\$/kg	-	-	-	-	38.8
<b>Change in cash</b>	\$m	<b>4</b>	<b>169</b>	<b>(121)</b>	<b>6</b>	<b>(53)</b>	HPA First Production - Total	t	196	351	350	350	3,332
Free cash flow	\$m	(19)	(48)	(251)	(254)	(53)	<b>VALUATION</b>						
<b>BALANCE SHEET</b>							<b>Product price scenario</b>						
Year ending 30 June	Unit	2023a	2024a	2025e	2026e	2027e				<b>1</b>	<b>2</b>	<b>3</b>	
<b>ASSETS</b>										Base case			
Cash	\$m	21	190	68	74	21	4N HPAe price US\$/kg		24	27	31		
Receivables	\$m	2	8	4	2	28	HPA First project \$m						
Inventories	\$m	1	3	2	1	7	Unrisked NPV (8% discount rate)		1,449	1,823	2,198		
Capital assets	\$m	38	59	272	544	569	Risk discount	10%					
Other assets	\$m	6	8	8	8	8	Risked NPV		1,304	1,641	1,978		
<b>Total assets</b>	\$m	<b>67</b>	<b>267</b>	<b>354</b>	<b>629</b>	<b>633</b>	Other (Canada potential, 80% risked)		290	365	440		
<b>LIABILITIES</b>							Alpha Sapphire (50 growth units, 25% risked)		196	196	196		
Creditors	\$m	5	8	5	2	14	Other (downstream & other)		65	82	99		
Borrowings	\$m	-	3	133	393	393	Corporate costs \$m	(50)					
Provisions	\$m	-	2	2	2	2	Enterprise value \$m		1,805	2,234	2,662		
Other liabilities	\$m	6	8	8	8	8	Net debt / (cash) \$m	(146)					
<b>Total liabilities</b>	\$m	<b>11</b>	<b>20</b>	<b>147</b>	<b>404</b>	<b>416</b>	<b>Equity valuation (risked, diluted) \$m</b>		<b>1,951</b>	<b>2,380</b>	<b>2,808</b>		
<b>NET ASSETS</b>							Diluted shares on issue m	1,141	-	-	-		
Share capital	\$m	128	349	345	412	412	<b>Equity valuation (risked, diluted) \$/sh</b>		<b>1.70</b>	<b>2.00</b>	<b>2.40</b>		
Reserves	\$m	8	3	3	3	3							
Accumulated losses	\$m	(80)	(105)	(141)	(190)	(197)							
Non-controlling interest	\$m	-	-	-	-	-							
<b>SHAREHOLDER EQUITY</b>	\$m	<b>56</b>	<b>247</b>	<b>207</b>	<b>225</b>	<b>218</b>							
Weighted average shares	m	839	922	1,135	1,135	1,135							

SOURCE: BELL POTTER SECURITIES ESTIMATES

**Recommendation structure**

**Buy:** Expect >15% total return on a 12 month view. For stocks regarded as 'Speculative' a return of >30% is expected.

**Hold:** Expect total return between -5% and 15% on a 12 month view

**Sell:** Expect <-5% total return on a 12 month view

*Speculative Investments are either start-up enterprises with nil or only prospective operations or recently commenced operations with only forecast cash flows, or companies that have commenced operations or have been in operation for some time but have only forecast cash flows and/or a stressed balance sheet.*

*Such investments may carry an exceptionally high level of capital risk and volatility of returns.*

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Disclosure: Bell Potter Securities acted as Joint Lead Manager to A4N's \$175m equity placement and share purchase plan in May 2024 and received fees for that service.

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