



The Manager Companies - ASX Limited 20 Bridge Street Sydney NSW 2000 ASX Announcement 29 April 2024 (11 pages)

ACTIVITIES FOR THE QUARTER ENDED

31 MARCH 2024

HPA FIRST PROJECT STAGE 2

- Credit approval for \$400m in Australian Government loan facilities
- Stage 2 DFS near complete ahead of FID in Q2 2024
- Stage 2 Integrated Owners Team (IOT) established
- Appointment of General Manager Projects
- Project team offices leased
- Long lead item vendor engineering advanced

HPA FIRST PROJECT STAGE 1

- HPA circuit reaching stable production
- HPA production at >500kg per week at >99.995% purity
- HPA disc production for sapphire growth underway
- Boehmite and alumina tri-hydrate circuit in commissioning

PRODUCT MARKETING

- Increased momentum for Al-nitrate based LiB anode coating (UltraCoat)
 - LiB sector interest driven by focus on battery fire prevention
 - Engagement both with LiB anode manufacturers and battery makers
- 45 product test samples delivered in the quarter
- 11 small volume sales in CY2024 to date (average US\$75/kg)
- Expanding semiconductor sector interest for aluminas and alumina hydrates

ALPHA SAPPHIRE

- Initial 2 sapphire growth units (Phase A) near completion
- Successful multi-boule synthetic sapphire growth in Austria
- Joint marketing with Arctic Sapphire (Ebner-Fametec) commenced
- Mutual site visits across Alpha Sapphire and Arctic Sapphire sites
- Final layout configurations established for shortlisted Alpha Sapphire sites for phases B and C

CORPORATE

• Issue of performance rights to staff, key management and new Directors

PROJECTS UPDATE

The Board of Alpha HPA Limited ('Alpha' or 'the Company') is pleased to provide the March 2024 quarterly activities report.

Alpha remains strongly focused on the delivery of the HPA First and Alpha Sapphire Projects, each representing the commercialisation and production of critical high purity aluminium products driving de-carbonisation utilising the Company's proprietary aluminium purification and refining technology.

The HPA First and Alpha Sapphire Projects will deliver a range of ultra-high purity aluminium products that are critical materials to the supply chains of key de-carbonising high-technology sectors including:

- Semiconductors;
- LED lighting; and
- Lithium-ion batteries.

Activities in the March quarter were focused on:

- Continued production of 5N (>99.999%) purity aluminium nitrate (Al-nitrate), with cumulative production now at >500 tonnes of 5N purity.
- Ongoing expansion of product marketing and product development activities of the Company's suite of ultra-high purity precursor and alumina products.
- Implementation of the Company's collaboration with the Ebner-Fametec Group to accelerate the Company's staged entry into the downstream production of synthetic sapphire glass.
- Further Project financing discussions with Government lending agencies for a \$400m debt financing package to facilitate a Final Investment Decision (**FID**) for the full scale, Stage 2 of the HPA First Project.

Further details on these activities are outlined below.

STAGE 2 – FULL SCALE PROJECT

Stage 2 DFS near complete

The Definitive Feasibility Study (**DFS**) for full scale, Stage 2 of HPA First Project is now in final draft and due for release following final review processes.

The updated DFS incorporates an updated production profile of Alpha's high purity aluminium products and represents the final financial case that formed the basis for discussions with Project lenders (see below).

Credit approval for \$400m in Australian Government loan facilities

Subsequent to quarter end (17 April 2024) the Company received conditional approval for \$320 million in Project Ioan facilities and an \$80 million cost overrun facility in respect of Stage 2 of the HPA First Project.

The facilities will be jointly funded by the following Australian Government financing agencies (Lenders):

- Northern Australia Infrastructure Facility (NAIF), and
- Export Finance Australia (**EFA**), with support provided under the Australian Government's \$4 billion Critical Minerals Facility (administered by EFA) and EFA's Commercial Account.

The Australian Government agencies, NAIF and EFA, have each committed \$160 million in construction facility funding for the project.

The Australian Government's \$4 billion Critical Minerals Facility supports the Australian Government's Critical Minerals Strategy 2023-2030 by providing finance to strategically significant projects.

The NAIF loan will be provided through the State of Queensland and is subject to Queensland Government approval, along with execution of all required documentation and financing conditions being met.



Australian Prime Minister Anthony Albanese, Federal Resources Minister Madeline King, Queensland Premier Steven Miles, State Member for Gladstone Glenn Butcher and Deputy Gladstone Mayor Cr Natalia Muszkat with Alpha HPA staff at Alpha's Gladstone site for the announcing of government funding support for Stage 2

	SUMMARY PROJECT FINANCE TERMS			
Borrower	Solindo Pty Limited (wholly owned subsidiary of Alpha HPA Limited)			
Sponsor	Alpha HPA Limited			
Lenders	 Export Finance Australia, The State of Queensland (as the lender of record for a commitment from NAIF) 			
Senior Facilities Limits	 A. Construction Facility: A\$320,000,000 to be split 50:50 between NAIF and EFA. B. Cost Overrun Facility (COF): A\$80,000,000 to be split 50:50 between NAIF and EFA. 			
Other Conditions	A final commitment is subject to conditions required under the Critical Minerals Facility, completion of all due diligence to the satisfaction of EFA and NAIF, execution of finance documentation and satisfaction of customary conditions precedent. Drawdown is also subject to the Company securing letters of intent and product qualification for an aggregate of 10ktpa reasonably aligned with the intended product and production profile.			
Maturity Date	A. Construction Facility: 11 years.B. COF: 5 years.			

About Export Finance Australia

EFA is Australia's export credit agency (ECA). EFA provides commercial finance for export trade and overseas infrastructure development. From small and medium sized enterprises (SMEs) to large corporates, foreign Governments and infrastructure projects, EFA helps Australian businesses take on the world. In doing so, EFA finance supports Australia's economic security and regional resilience.

EFA administers the Australian Government's National Interest Account, which currently includes the Critical Minerals Facility, the Defence Export Facility and lending for the Australian Infrastructure Financing Facility for the Pacific.

About NAIF

The Northern Australia Infrastructure Facility (NAIF) is a Commonwealth Government development financier, investing for impact in Northern Australia. NAIF's primary purpose is to accelerate infrastructure development and thereby drive transformational growth in northern Australia by innovative financing that:

- Generates public benefit including that outside of what is captured by the project proponent.
- Encourages longer term growth in the economy and population of northern Australia.
- Encourages private sector participation in the financing of northern Australia's infrastructure needs; and
- Facilitates sustainable Indigenous participation, procurement, and employment outcomes.

The Company is now in the mature phases of market outreach and project financing with respect to the full scale Stage 2 HPA First Project, with the expectation of positioning Stage 2 to Final investment Decision.

Stage 2 Execution readiness

In preparation for the completion of the Stage 2 DFS and Stage 2 Project Financing, Alpha has advanced a number of key elements of the Stage 2 project implementation, including:

- Key Alpha staff appointed to the Project including General Manager Projects, Mr Brian Pook. Brian's initial focus is on building and finalising the Integrated Owner's Team (**IOT**) structure and makeup
- Key IOT members are onboarded, including:
 - Site construction manager
 - Prudentia Engineering engaged for detailed engineering and design
 - o Turner & Townsend engaged for project controls and procurement support
 - Other key Alpha staff roles within the project have been filled
- Focus on key long lead vendor package engineering with contracts and vendor engineering already underway where appropriate
- IOT office leased to enable the team to come under one roof and drive engineering and procurement team effectiveness
- IOT Project systems in place

Other workstreams underway:

- Amendments to existing approvals under way to accommodate final project layout
- Federal Safety Commission accreditation in final stages pending audit and final markups

HPA FIRST PROJECT - STAGE 1

HPA circuit

The HPA circuit is the new process circuit within Stage 1 and expands the capability of the Stage 1 PPF to span Alpha's full high purity aluminium product range to include:

- High purity aluminas, including nano HPA
- High purity alumina hydrates (both boehmite (AI-O-OH) and alumina tri-hydrate (AI(OH)₃))
- High purity aluminium sulphate

By quarter end, the HPA circuit was at stable operation producing both gamma and alpha phase alumina, with production reaching >500kgs per week at >99.995% purity.

The jet mill was in final stage commissioning, allowing Alpha to customise HPA orders to match customer requirements for:

- High purity alumina (alpha phase or gamma phase)
- Specific surface area
- Particle density
- Bulk density

The high purity alumina hydroxides circuit, producing both boehmite (AI-O-OH) and high-purity alumina trihydrate (AI(OH)₃) is undergoing commissioning.



Stage 1 spray dryer under commissioning used for final processing of high purity alumina hydrate

PRODUCT MARKETING

Alpha continues to service a wide range of product orders across a number of high-technology sectors, namely:

- Lithium-ion battery (LiB) sector: With a focus on cathode coating and dopants and anode coatings
- LED lighting sector: With a focus on HPA for synthetic sapphire LED substrates and LED phosphors
- **Semiconductor sector:** With a focus on materials for Chemical Mechanical Polishing (CMP) and thermal interface materials for semiconductor packaging

Alpha is utilising capacity in both the Stage 1, PPF in Gladstone and the Company's product development facility in Brisbane to service various stages of its expanding market outreach, which includes:

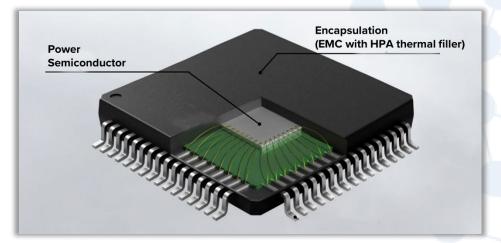
- servicing existing sales orders;
- delivering into tonnage scale orders for end-user production test work;
- servicing technical qualification, usually involving multiple test orders; and
- delivering initial production scale orders to demonstrate product suitability.

During the quarter, Alpha delivered 45 separate test samples, totalling 426kg, to multiple end-users, including a number of second and third round test sampling. The degree of engagement and activity from end-users continues to signal strong demand and positive customer intent.

In parallel, Alpha has also delivered into multiple small volume product sales across the full range of its products, in many cases to end-users with growing future product demand, and has placed 301kg of product, comprising 11 separate product sales and sales orders of all products at an average of US\$75/kg. Forming a base of small scale sales with target end-users is extremely encouraging for the conversion to high volume sales contracts.

Alpha also notes recent inbound interest from global distributors seeking new high purity alumina supply to service demand from the semiconductor sector. HPA demand from the semiconductor sector is linked to the increasing adoption of silicon-carbide (Si-C) based power-semiconductors, which requires HPA for:

- thermal interface fillers in epoxy moulding compounds (EMC), and
- abrasives for Si-C polishing slurries.



Schematic showing power-electronic semiconductor with EMC encapsulation, using HPA thermal interface materials

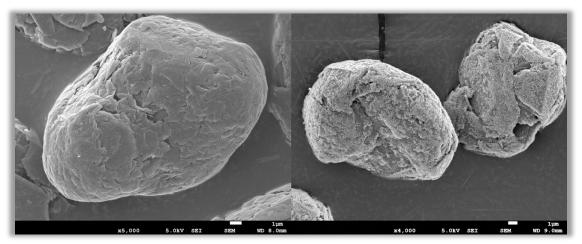
Increased momentum Al-nitrate based LiB anode coating (UltraCoat)

As set out in Alpha's December Quarterly Activities report, Alpha continues to enjoy very wide engagement across the LiB anode sector for the testing of Al-oxide coated graphite anode materials using ultra high purity Alnitrate precursors (Alpha's 'UltraCoat' process), with testing now underway with 15 different end-users.

The UltraCoat process provides for higher capacity, faster cycling LiB cells, and replaces the traditional carbonpitch coat which is used the incumbent graphite anode coating process.

Alpha can now confirm deepening interest in the technology from battery manufactures, driven by the safety benefits of the process, which is recorded to provide **100% reduction in thermal runaway (battery fires) under nail-penetration testing**. The nail penetration test is the industry standard test for battery safety under short circuit/trauma.

The wider regulatory and EV manufacturer focus on Li-ion battery fire prevention is considered strongly favourable for the accelerated testing and adoption of this coating technology, enabled by Alpha's establishment of commercial scale aluminium nitrate production.



SEM imagery showing raw graphite anode particles (LHS) and Ultra-coated particles (RHS).

🖉 Alpha **HPA**

ALPHA SAPPHIRE



Initial 2 sapphire growth units (Phase A) near completion

Across the quarter Alpha made strong progress in assembling the initial 2 (Phase A) sapphire growth units at the PPF with the assistance of on-site Ebner-Fametec technical personnel.

The Company is now targeting late April for commencing its first on-site crystal growth. This slightly delayed commencement date is due to late equipment deliveries caused by longer shipping routes to avoid the Middle East conflict.



Assembly of the first 2 (Phase A) sapphire growth units at final stages

Successful multi-boule synthetic sapphire growth in Austria

During the quarter Ebner-Fametec advised of the successful growth of sapphire boules, using Alpha's HPA tablet feedstock material within a multiple-boule growth furnace, being the precise set-up for the units that Alpha Sapphire is installing in Stage 1.

Five x 32kg boules were grown together, with one boule (position 1) cracking on cooling (due to a software error). The remaining four boules were good body crystal with good clarity and no colour tinting. These results have seen Alpha's HPA tablets successfully qualified for Fametec's sapphire product.



High quality sapphire boules from most recent multiple boule growth using Alpha's HPA feedstock material

Alpha is now completing a further 300kg of densified HPA disc tablets for Ebner, as well as now building a tablet stockpile for Alpha Sapphire production (see below).



Densified HPA disc tablets, customised for both Ebner-Fametec and Alpha Sapphire

Alpha Sapphire and Arctic Sapphire – mutual site visits and joint marketing

Alpha Sapphire has now commenced joint product marketing activities with Ebner-Fametec's sapphire growth division, Arctic Sapphire (Norway), with both companies sharing costs and resources. The intent of both companies is to establish full marketing capability combined with the ability to offer customers a geographically diversified production base.

In connection with this arrangement, mutual site visits to Arctic Sapphire (Norway & Austria) and Alpha's Stage 1 facility (Gladstone) were recently completed by the respective senior management of both companies.



Alpha hosting senior Ebner-Fametec management at the Stage 1 PPF facility in Gladstone

🖉 Alphə **HPA**



Alpha visit to the Arctic Sapphire facility in Norway

Final layout configurations established for shortlisted sites

Alpha's engineering team have completed final layout configurations for the shortlisted sites to house:

- Phase B (48 additional sapphire units) and
- Phase C (50 additional sapphire units).

Alpha will finalise Phase B and Phase C project site selection following finalisation of power pricing and connection analyses and negotiations.

CORPORATE

Issue of Performance Rights

During the quarter the Company issued 4,725,000 Performance Rights under its Incentive Performance Rights Plan (**Plan**) to employees of the Company. Additionally, the Company will seek, at a later date, shareholder approval for the issuance of a further 240,000 Performance Rights to each of recently appointed Non-Executive Directors Annie Liu and Marghanita Johnson.

The Performance Rights consisted of:

Number of Rights	Basis	Vesting	Issued to
4,545,000	Service Based	1/3 Dec 2024, 1/3 Dec 2025, 1/3 Dec 2026	Staff and management
180,000	Performance Based	Subject to share price performance	Senior management
480,000	Service Based	1/3 Dec 2024, 1/3 Dec 2025, 1/3 Dec 2026	Directors – subject to shareholder approval

The Performance Rights were issued under the Company's ASX Listing Rule 7.1 capacity.

Related Party Expenditures

During the March quarter, aggregate payments to related parties and their associates totalled \$500,645 comprising \$413,645 of payments to Directors or Director related entities for Directors' consulting fees and \$87,000 in fees were paid to MIS Corporate Pty Limited ('MIS'), an entity in which Directors Norman Seckold and Peter Nightingale have a controlling interest. MIS provides full administrative services, including administrative, project commercial services, accounting, business development, staff, rental accommodation, services and supplies to the Group.

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Appendix 4C

Quarterly cash flow report for entities subject to Listing Rule 4.7B

Name of entity	
	Alpha HPA Limited

ABN Quarter ended ("current quarter")		
79 106 879 690	31 March 2024	

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	15	44
1.2	Payments for		
	(a) research and development	(1,789)	(7,262)
	(b) product manufacturing and operating costs	(1,912)	(7,195)
	(c) advertising and marketing	(116)	(425)
	(d) leased assets	-	-
	(e) staff costs	(2,215)	(6,148)
	(f) administration and corporate costs	(1,129)	(3,964)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	369	710
1.5	Interest and other costs of finance paid	1	1
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	736	1,483
1.8	Other (GST on government grants)	216	(710)
1.9	Net cash from / (used in) operating activities	(5,824)	(23,466)

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) businesses	-	-
	(c) property, plant, and equipment	(2,477)	(11,881)
	(d) investments	-	-
	(e) intellectual property	-	(2,000)
	(f) other non-current assets	-	-

ASX Listing Rules Appendix 4C (17/07/20) + See chapter 19 of the ASX Listing Rules for defined terms.

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
2.2	Proceeds from disposal of:		
	(a) entities	-	-
	(b) businesses	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) intellectual property	-	-
	(f) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	(39)	16
2.6	Net cash from / (used in) investing activities	(2,516)	(13,865)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	43,650
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	(1,981)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (receipt of funds from QCMBTF facility)	-	3,000
3.10	Net cash from / (used in) financing activities	-	44,669

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	36,255	20,589
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(5,824)	(23,466)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(2,516)	(13,865)

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	44,669
4.5	Effect of movement in exchange rates on cash held	2	(10)
4.6	Cash and cash equivalents at end of period	27,917	27,917

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	27,917	36,255
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	27,917	36,255

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	501
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
	f any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include ation for, such payments.	e a description of, and an

7.	Financing facilities Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities		
7.2	Credit standby arrangements		
7.3	Other (QCMBTF facility)	30,000	3,000
7.4	Total financing facilities	30,000	3,000
7.5	Unused financing facilities available at quarter end -		-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		
	Facility provided by QIC Critical Minerals and Battery Technology Fund (QCMBTF) for acceleration of 50 sapphire growth units. Security is first ranking security over shares in Alpha Sapphire and its assets. Repayment amount is 4.35% of gross revenue (less power costs) generated from Alpha Sapphire from sapphire product sales, on the first 2,500 tonnes of sapphire product sales. Greater of full repayment amount and the full commitment becomes repayable in prescribed circumstances (including events of default).		

Estimated cash available for future operating activities	\$A'000
Net cash from / (used in) operating activities (item 1.9)	(5,825)
Cash and cash equivalents at quarter end (item 4.6)	27,917
Unused finance facilities available at quarter end (item 7.5)	-
Total available funding (item 8.2 + item 8.3)	27,917
Estimated quarters of funding available (item 8.4 divided by item 8.1)	4.79
	Net cash from / (used in) operating activities (item 1.9) Cash and cash equivalents at quarter end (item 4.6) Unused finance facilities available at quarter end (item 7.5) Total available funding (item 8.2 + item 8.3) Estimated quarters of funding available (item 8.4 divided by

Note: if the entity has reported positive net operating cash flows in item 1.9, answer item 8.5 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.5.

8.6 If item 8.5 is less than 2 quarters, please provide answers to the following questions:

8.6.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: N/A

8.6.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: N/A

8.6.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: N/A

Note: where item 8.5 is less than 2 quarters, all of questions 8.6.1, 8.6.2 and 8.6.3 above must be answered.

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 29 April 2024.

Authorised by: By the Board. (Name of body or officer authorising release – see note 4)

Notes

- 1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.