

Corporate

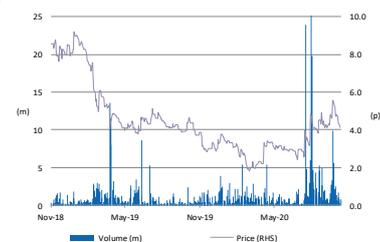
 Current price **4.25p**

 Sector **TMT**

 Code **CPX.L**

 AIM **AIM**

Share Performance



| | 1m | 3m | 12m |
|-------|-------|-------|-------|
| CPX.L | -0.8% | 44.4% | -5.4% |

Source: Thomson Reuters, Allenby Capital

Share Data

 Market Cap (£m) **18.8**

 Shares in issue (m) **442.1**

| 52 weeks | High | Low |
|----------|--------------|-------------|
| | 5.55p | 1.8p |

 Financial year end **30 June**

Source: Company Data, Allenby Capital

Key Shareholders

Canaccord Genuity 10.9%

Quilter Cheviot 8.0%

Ruffer LLP 6.8%

D Newlands 6.5%

A Kongats (CEO) 2.2%

Source: Company Data, Allenby Capital

David Johnson

0203 394 2977

d.johnson@allenbycapital.com

www.allenbycapital.com

CAP XX Ltd (CPX.L)

Murata project on track; encouraging demand

FY20 results from CAP-XX Ltd, the leading designer and manufacturer of prismatic and cylindrical supercapacitors, demonstrated 12% revenue growth and reduced losses. The production expansion project, following the acquisition of the Murata assets, is on schedule and within the A\$5.3m budget. The new facility is in the final stages of commissioning and product should be available by the end of the calendar year. The sales order book at year end was more than double the level of FY19 for existing CAP-XX product and aggregate levels of customer enquiries that significantly exceeds the new capacity. COVID-19 created a number of additional challenges for the Murata project and limiting the impact to a three-month delay will represent a considerable achievement. The outlook for product sales is positive as CAP-XX takes advantage of the new manufacturing facility and there is scope for further licensing deals to develop ongoing high margin royalty revenues. Forecasts remain currently under review.

— **Financial performance:** Group revenue +12% to A\$3.6m with product sales +27% to A\$2.7m. This included an increase in cylindrical cans as well as the sale of some Murata manufactured products. Royalties were essentially flat but with no new licences, Licence Fees and Royalties fell 18% to A\$0.9m. The absence of licence fees and change in business mix resulted in reported GM falling 300bps to 52%. Operating costs, excluding project costs, increased 10% to A\$6.7m with increased legal spending (A\$0.7m) on the successful Ioxus case and ongoing Maxwell/Tesla case and investment in sales and marketing. Year end cash was A\$2.9m (FY19: A\$2.4m) but this does not include the c. A\$3.2m R&D tax rebate expected this quarter.

— **Murata project:** CAP-XX successfully relocated to new premises in Sydney that offer substantially more space and electrical power at a similar cost to its previous facility. Four production lines comprising >40 containers were moved from Japan and commissioning and factory acceptance testing are in their final stages. The board remains confident that manufactured and tested product from the DMF/DMT lines will be available by calendar year end. The full capacity of the new lines is c. 4.8m DMF/DMT and >2.4m DMH units p.a. at a much lower unit cost than CAP-XX's current Malaysian manufacturing. Murata project costs of A\$3.7m in FY20 (A\$2.1m net after the expected incremental R&D tax rebate).

— **Demand outlook:** Management reports high levels of interest from both pre-existing Murata customers and new prospects for the output of the new production lines. The aggregate level of enquiries substantially exceeds the new manufacturing capacity with the top 10 prospects equivalent to >9m units p.a. Target markets include smart meters, security products, medical devices, consumer products and IoT sensors – applications that make use of CAP-XX's thin form factor and where supercapacitors can complement batteries. Meanwhile the FY20 year-end sales order book for CAP-XX's existing product set was double the FY19 level.

Year End: 30 June

| (A\$'000) | 2017 | 2018 | 2019 | 2020 |
|--------------|--------|--------|--------|--------|
| REVENUE | 4,142 | 4,906 | 3,205 | 3,588 |
| ADJ. EBITDA | -1,197 | -1,477 | -1,609 | -1,584 |
| ADJ. PBT | -1,664 | -2,533 | -2,813 | -2,046 |
| ADJ. EPS (c) | -0.59 | -0.85 | -0.89 | -0.54 |
| NET CASH | 3,887 | 1,911 | 2,429 | 2,895 |

Allenby Capital acts as Nomad & Broker to CAP XX Ltd (CPX.L).

Please refer to the last page of this communication for all required disclosures and risk warnings.

Murata project on track; encouraging demand

FY20 results demonstrate growth in revenue and a reduction in adj. losses at the leading designer and manufacturer of prismatic and cylindrical supercapacitors. As importantly, the production expansion project following the acquisition of manufacturing assets from Murata remains on track and on budget. As previously argued, this project offers a step change in CAP-XX's manufacturing capacity and will drive revenue and a move to profitability. Management indicates that the current sales order book for CAP-XX's existing products is double that of FY19 and there has been high levels of interest in the products from the new production lines from both pre-existing Murata customers and new potential customers. These span CAP-XX's existing markets (e.g. smart meters, security products and medical devices), and new ones (consumer products and IoT sensors). CAP-XX maintains its twin revenue strategy of Product Sales and Licensing/Royalties and will use litigation where necessary to defend its IP. In August, CAP-XX was successful in its court proceedings against Ioxus for patent infringement and its action against Maxwell Technologies is ongoing. Period end cash of A\$2.9m plus the A\$3.2m R&D tax rebate expected this quarter means the company remains comfortably funded to take advantage of the global supercapacitor opportunity.

FY20 performance

Exhibit 1: Summary financials

| Year end 30 June | FY19A | FY20A | Change |
|------------------------------|----------------|----------------|---------------|
| Revenue | | | |
| Product sales | 2,128 | 2,709 | +27.3% |
| Licence & royalties | 1,077 | 879 | -18.4% |
| Total | 3,205 | 3,588 | +12.0% |
| <i>Reported gross margin</i> | 55% | 52% | -300bps |
| General & Administrative | (2,084) | (2,819) | 35.3% |
| Process & Engineering | (915) | (907) | -0.9% |
| Selling & Marketing | (744) | (885) | 19.0% |
| Research & Development | (1,547) | (1,496) | -3.3% |
| Project expenses | - | (3,729) | |
| Share Based Payments | (859) | (280) | -67.4% |
| Reported EBITDA | (1,793) | (4,447) | 148.0% |
| Adjustments | 183 | 2,862 | |
| Adj. EBITDA | (1,609) | (1,584) | -1.6% |
| Adj. net loss | (2,813) | (2,046) | -27.3% |
| Net cash | 2,429 | 2,895 | +19.2% |

Source: Company; Allenby Capital

Exhibit 2: Revenue split



Source: Source: Company; Allenby Capital

Group revenue increased 12% to A\$3.6m in FY20 (June). Within this, Product Sales were up 27% to A\$2.7m. This included a large increase in sales of cylindrical cells, albeit from a small base, and a small volume of sales of Murata-manufactured prismatic products. Royalties were essentially flat, despite the Murata plant being decommissioned in February 2020, but with no new licences signed during FY20, Licence Fees and Royalties fell 18% to A\$0.9m. The absence of licences and the change in the revenue mix resulted in reported gross margins falling 300bps to 52%. The FY19 reported gross margin comparator was also depressed by A\$0.2m due to a prior year adjustment. As the new production lines come on stream, we would expect gross margins will recover and any Licence Fees and Royalties drop straight through to gross profit. The sales order book for CAP-XX's existing products at the end of FY20 was more than double the level of the end of FY19.

Operating expenditure, excluding direct Murata project expenditure, increased 10% to A\$6.7m. This included increased spend around patent infringement in the US (A\$0.7m) and total G&A increased A\$0.7m to A\$2.8m. Investment in sales and marketing with the appointment of a dedicated sales representative in the US resulted in a 19% increase to

A\$0.9m. R&D (excluding Murata) and Process and Engineering expenses remained steady at A\$1.5m and A\$0.9m respectively. We would anticipate a gradual increase in the latter as the new manufacturing capacity comes on stream. Adj. losses (stripping out the Murata project, legal expenses for patent infringement and A\$0.1m for the new AASB 16 treatment of leases), reduced A\$0.8m to A\$2.0m.

Murata project operating costs were A\$3.7m (A\$2.1m net after the expected incremental R&D tax rebate). The Murata project was also reflected in the increased capex line (A\$1.1m versus A\$0.3m in FY19). The reduction in inventories (A\$1.2m from A\$1.9m) was a function of sales of CAP-XX finished goods and we would expect some expansion as the new production lines come on stream.

Cash reserves at FY20 were A\$2.9m (FY19: A\$2.4m; H1 FY20: A\$1.8m) that reflected the cash outflow on the Murata project and other operating losses offset by January's deal-associated placing (£3.4m net).

R&D tax rebate due

Cash does not include the Federal Government R&D tax rebate that is expected to be c. A\$3.2m (FY20: A\$1.9m) and paid this quarter. A material percentage of CAP-XX's research and development expenditure that was a result of the costs incurred in the relocation and commissioning of the acquired Murata plant and equipment can be claimed as eligible expenditure. The total amount of eligible research and development expenditure in FY20 was A\$7.4m (FY19: A\$3.2m). CAP-XX also received a small COVID-19 government support grant (A\$0.2m).

On schedule and within budget

Murata project

The ex-Murata production lines capacity expansion project is on schedule and within the A\$5.3m budget that was set out last November (see research [here](#)) when CAP-XX announced the proposed asset acquisition. The fit out of CAP-XX's new Seven Hills facility is now largely complete. The Murata electrode mixing, coating, slitting line is operational and the production lines for the DMF and DMT supercapacitor ranges are in the process of being commissioned.

CAP-XX successfully vacated its old premises at Lane Cove, the property was returned to its original condition and the associated bank guarantee received. The new facility at Seven Hills in western Sydney offers substantially more floor space and electrical power at a similar cost to Lane Cove. CAP-XX has secured a 10-year lease with two five-year options. The facility required an extensive fit out including building a 'factory inside a factory' with clean room type facilities, new air treatment, utilities and fire services.

Exhibit 3: Factory within factory



Source: Company

Exhibit 4: Manufacturing line



Source: Company

Manufactured and tested supercapacitor by the end of the 2020

Commissioning and factory acceptance testing are in their final stages and the Board remains confident that manufactured and tested supercapacitor product will be available by the end of the 2020. Production of supercapacitors using the newly installed equipment commenced in October and initial samples have been made available to key customers.

COVID-19 impact

The project was not immune to the impacts of COVID-19, however. These included cancelled and delayed ships from Japan to Sydney; the inability of Japanese engineers to assist with on-site commissioning in Sydney due to travel restrictions; and delays/challenges in procuring some equipment and raw materials. A delay of around three months to the project, as announced in May's update, represents a very creditable performance in the circumstances.

Step change in manufacturing capacity

Murata manufacturing assets

The Murata assets offer a step change in CAP-XX's manufacturing capacity although it will take some time to move up to full manufacturing capacity. CAP-XX expects the first Murata products (DMF/DMT) will ship from the new facility by the end of 2020. At a later stage, CAP-XX plans to release the very thin DMH supercapacitor.

At full capacity, the four lines will be able to produce c. 4.8m DMF or DMT units and more than 2.4m DMH units per annum all at a much lower cost per unit than CAP-XX's current manufacturing facility in Malaysia given a much higher levels of automation. Using an indicative selling price of A\$3.40 per unit, this capacity equates to more than A\$24m of potential revenue on the basis of three shift operation. With a target gross margin of 60%, this suggests a potential gross profit of A\$14.5m per annum. To put this into context, Murata's supercapacitor sales were c. 4m units per annum (c. A\$13m revenue) prior to acquisition.

DMT

Murata had developed three families of supercapacitors based on the CAP-XX IP: DMT, DMF and DMH. The DMT is a high-power, ultra long life, high temperature supercapacitor that is ideally suited for extreme applications such as solid state drives and automotive applications. Because of its thinness it can be assembled onto printed circuit boards similar to the majority of electronic components. This provides considerable scalability.

DMF

The DMF is a general purpose, very high power, long life supercapacitor that has a very low ESR and a wide operating range. It is suitable for high-brightness LED flash, high-power audio, smart meters etc. And like the DMT because of its thinness, it can be assembled onto printed circuit boards similar to the majority of electronic components and this provides considerable scalability.

DMH

The DMH is an ultra-thin supercapacitor with a wide operating temperature range. At only 0.4mm thick, it is targeted at smart phones, smart credit cards, wearable devices, 3V battery applications and other IoT applications where thickness is critical.

Exhibit 4: Supercapacitor specifications

| Product | Rated Voltage | Capacitance | ESR (1 kHz) | Dimensions | Operating temperature |
|--------------------|---------------|---------------|------------------------|---|-----------------------|
| DMT3N4R2U224M3DTA0 | 4.2V | 220 mF ±20% | 300 mΩ (320 mΩ Max) | 21 x 14 x 2.2mm (21.5 x 14.5 x 2.5 mm Max) | -40° to +85°C |
| DMT334R2S474M3DTA0 | 4.2V | 470 mF ±20% | 130 mΩ (150 mΩ Max) | 21 x 14 x 3.5mm (21.5 x 14.5 x 3.8 mm Max) | -40° to +85°C |
| DMF3Z5R5H474M3DTA0 | 5.5V | 470 mF ±20% | 45 mΩ (55 mΩ Max) | 21 x 14 x 3.2mm (21.5 x 14.5 x 3.4 mm Max) | -40° to +70°C |
| DMF4B5R5G105M3DTA0 | 5.5V | 1,000 mF ±20% | 40 mΩ (50 mΩ Max) | 30 x 14 x 3.7mm (30.5 x 14.5 x 4.0 mm Max) | -40° to +70°C |
| DMHA14R5V353M4ATA0 | 4.5V | 35 mF ±20% | 300 mΩ | 20 x 20 x 0.4mm (20.5 x 20.5 x 0.4 mm Max) | -40° to +85°C |

Source: Company

Customer and markets

Murata had gained some commercial traction with c. 60 customers in Europe, APAC and the US with small form factor applications in verticals including smart meters, automotive, wireless sensors and solid state drives. These are the same markets that CAP-XX has been targeting and Murata had been a competitor as well as an IP licensee. There was no particular customer concentration with Murata’s top five clients accounting for c. 44% of total revenue and a further 32 accounting for 47%. Geographically Europe has been Murata’s largest market (c. 60%), followed by Asia (30%) and the US (10%).

High levels of interest

During the relocation and recommissioning of the Murata manufacturing assets, CAP-XX has sold small volumes of Murata manufactured products that were acquired as part of the transaction. CAP-XX reports high levels of interest in the products from the new manufacturing lines from both existing Murata customers and potential new customers. The aggregate levels of these enquiries comfortably exceeds the total capacity of the production lines with the top ten prospects topping 9m units per annum. Key target markets include CAP-XX’s current core markets (including smart meters, security products and medical devices) and new areas (consumer products and IoT sensors).

Strategic rationale

The Murata asset purchase offered a number of attractions and should result in a step change in CAP-XX’s revenue and hasten its move to profit and cash generation.

- **Customer base.** The acquisition potentially expands CAP-XX’s sales and customer base in its target markets for small form factor supercapacitors (automotive, smart meters, IoT and solid state drives) as CAP-XX expects to retain the majority of Murata’s existing customers. Murata has introduced CAP-XX to its existing customers that includes a number scheduled to go into volume production with Murata components that use CAP-XX’s IP. CAP-XX has also continued to supply some Murata-manufactured product in the interim.
- **Established products.** Murata had focused on five main products. As a result, it had much longer run times and higher product gross margins. Once the production lines are recommissioned, CAP-XX will be able to offer three tiers of products: its existing prismatic supercapacitors that are available in multiple form factors, Murata’s volume prismatic products and CAP-XX’s own cylindrical products.
- **Proven manufacturing capacity at a very low cost.** There was minimal outlay for the assets even though Murata had invested more than \$100m in developing its third-generation manufacturing lines that significantly reduced

the unit cost of production. The bulk of the project costs have been associated with moving the manufacturing lines and recommissioning them at CAP-XX's new facility. The acquisition represented by far the lowest cost option to increase its manufacturing capacity to respond to the record sales enquiries. And there is scope to increase capacity further at the new facility through incremental spend.

- **Competition.** Murata was both a licensee and competitor and the acquisition has removed a competitor from CAP-XX's target markets.

IP protection

Licensing remains an important revenue stream and CAP-XX continues to defend its intellectual property. CAP-XX has signed licence agreements with Murata, AVX, Cornell-Dubilier Inc and TDK Corp and several other licence agreements are under negotiation. Licensing offers scope for substantial and recurring high margin revenue. These agreements validate CAP-XX's technology leadership in the field of supercapacitors and energy storage and also increase CAP-XX's sales reach.

Legal success

Where necessary, CAP-XX will seek legal redress for patent infringement. This August, CAP-XX announced that the Delaware District Court had made a judgement in its favour against Ioxus Inc and had found Ioxus liable for infringing the patents-in-suit and awarded CAP-XX compensatory damages of \$1.2m, enhanced damages of \$3.7m and its attorney's fees. CAP-XX is now pursuing recovery of the court award though it remains unclear as to whether this will be successful as XS Power Batteries acquired many of the assets of Ioxus in April 2020.

Separately, CAP-XX continues to pursue a similar patent infringement action against Maxwell Technologies Inc, now part of Tesla Inc. CAP-XX initiated proceedings in September 2019 and initial discussions in front of the Delaware District Court are scheduled for this month.

3 Volt

The 2.75V and 3V chemistries that CAP-XX has developed for its new range of products that are designed to be used with 3V coin batteries can be used in the Murata manufacturing line as well as the products CAP-XX currently manufactures in Malaysia.

The development of the 3V product has been targeted to meet the demand for small, inexpensive, energy efficient power solutions for thin wearables, key fobs and other IoT devices, especially those that use 3V coin cell lithium ion batteries, such as the CR2032.

In the future, there is the opportunity to migrate the same technology to larger prismatic supercapacitors, automotive modules and other products for high-energy, high power applications. CAP-XX may look to partner existing suppliers for these markets.

Outlook

The new production lines substantially increase CAP-XX's manufacturing capacity and offer a much lower unit cost than the prismatic parts CAP-XX currently manufactures in Malaysia. Whilst it will take some time to achieve full capacity, management reports considerable interest for supply from both pre-existing Murata customers and new

potential customers. The aggregate level of these enquiries exceeds the full capacity of the new lines with the top ten prospects exceeding 9m units per annum. Key initial markets are where CAP-XX already has a presence (including smart meters, security products and medical devices) together with new business (e.g. consumer products and IoT sensors).

COVID-19 has had various impacts on the business, in addition to the three-month delay on the Murata project. Some pre-existing Murata customers have advised that due to the combination of a short-term reduction in demand for their products and some forward ordering of Murata units ahead of decommissioning, they have sufficient inventory for the next six to nine months. Royalty payments from AVX and Murata (pre-decommissioning) also stagnated in FY20. Finally, production efficiency and output from CAP-XX's existing manufacturing facility in Malaysia has been impacted by the travel restrictions placed on CAP-XX's Australian engineers.

Overall, interest in supercapacitors as a means of addressing the limitations of traditional battery technologies continues to increase and CAP-XX is well positioned to capitalise on the global opportunity.

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Allenby Capital, 5 St Helen's Place London EC3A 6AB, +44 (0)20 3328 5656, www.allenbycapital.com