



ASX RELEASE
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Carbonxt Group Limited – March 2024 Quarterly Update

Highlights

- Customer receipts for the March quarter were \$3.6m – an increase of 8% on the prior quarter.
- Sales of Powdered Activated Carbon (PAC) were consistent q/q and up 56% on the prior comparative period due to increased sales in non-coal fired power station channels. This outcome has been a deliberate effort of the Company to improve manufacturing efficiencies and increase gross margins.
- Sales of Activated Carbon Pellets (ACP) were up 37% on the prior quarter.
- Construction of the flagship Activated Carbon production facility in Kentucky, USA is now focused on commissioning activities, with operations expected to commence early in Q3 CY2024.
- Post quarter-end, the US Environmental Protection Agency (EPA) released an important update on PFAS regulation, with the introduction of legally enforceable rules that limit PFAS levels to 4 parts per trillion (ppt) in US drinking water.

Carbonxt Group Ltd (ASX:CG1) (“Carbonxt” or “the Company”) has released its Appendix 4C Report for the March 2024 Quarter and provides the following update on the key areas of activity for the period -- all numbers are in A\$.

Principal Activities

Carbonxt is a cleantech company that develops and manufactures environmental technologies to maintain compliance with air and water emission requirements and to remove harmful pollutants. The Company’s primary operations are in the US and include a significant R&D focus as well as manufacturing plants for activated carbon pellets and powder activated carbon. Carbonxt continues to expand its pellet product portfolio to address numerous industrial applications.

Managing Director Warren Murphy commented: *“The March quarter marked another busy period for Carbonxt’s US team, as final construction activity at the flagship Kentucky facility approaches completion ahead of commissioning and first production. The new facility will provide the Company with a significantly expanded production capacity for Activated Carbon products in both granular and pellet form, marking an important step forward as part of our commitment to play a key role in the provision of market-ready products to improve the quality of US water supplies. The industry continues to enjoy strong policy and regulatory support at the federal government level, highlighted by the latest EPA announcement confirming the new legally enforceable standard for PFAS levels in US drinking water. We look forward to providing consistent updates on Kentucky in the June quarter as final construction works are completed ahead of the commencement of full production operations which are scheduled for early in the September quarter.”*



Overview

- Customer receipts for the period were \$3.6m, an increase of 8% compared with the prior quarter receipts. As noted above, **Powdered Activated Carbon (ACP)** sales have increased on an annualised basis, with that growth coming from both price increases across the customer portfolio, as well as new customer volume growth. Sales that are uncorrelated to seasonality are an increasing percentage of PAC sales. These efforts have seen an increase in plant efficiencies and a corresponding significant increase in gross margins.
- **Activated Carbon Pellet (ACP)** primary sales during this period are up by 37% on the prior quarter. This reduction in inventory mentioned in the prior quarter's update continued in this quarter as our largest pellet customer recommenced operations following mechanical issues at its plant. Output though has been affected by the outages at our major customer's facility mentioned above being 23% reduced from a year ago.

Revenue and Operating Cash Flow

Gross Margins have increased as excess inventories have been reduced over the last two quarters. Overall, though, the implementation of plant efficiencies from existing operations, following on from facility upgrades in the second half of 2023, have been effected which has resulted in lower operational costs and stronger trends in gross margins, which are expected to accelerate once the Kentucky plant is fully commissioned.

Underlying cash flow from operations was a loss of \$0.6m, with higher US health benefits of \$0.2M and expensing of \$0.15m of R&D the largest material differences from the previous quarter.

Payments to Related Parties

Included within staff costs (item 1.2 (e) of Cash Flow from Operating Activities in the Appendix 4C) are payments to the Directors. The rates of payment to the continuing directors are unchanged from the remuneration as set out in the last Annual Report.

Update on PFAS and PFOA

The final rules on PFAS/PFOAs were announced by the US EPA on 10 April 2024. These rules are the first-ever national, legally enforceable drinking water standards in the USA.

PFAS, or per and polyfluoroalkyl substances, are a large chemical family of over 4,700 chemicals. They are often referred to as "forever chemicals" as they barely degrade. Long-term exposure to these chemicals is linked to significant health risks. In early 2023, the US EPA announced new legal limits for six PFAs of 4 parts per trillion – a ~90% reduction from the previous enforceable limit of 70ppt. The final rules have confirmed these legal limits.

The new plant under construction in Kentucky enables the Company to enter the liquid phase of the AC market. That market is estimated to be around USD \$300 million today, with the leading US water utility representative group (AWWA) estimating that market to grow three-fold with the introduction of the new PFAS rules. Analysis of the PFAS market in January 2024 by the global research team at BAML Securities also forecast even higher growth for the Granular Activated Carbon market as a result of the new regulations.



In addition, the Biden Administration has announced approximately **\$1 billion** in direct funding to help address PFAS contamination – part of a **\$9 billion** investment package through the Bipartisan Infrastructure Law to help communities with drinking water impacted by PFAS.

At the federal government level, there is also a further **\$12 billion** available through that law for general drinking water improvements, including tackling contaminants like PFAS.

Update on Kentucky Investment

The construction of the new activated carbon plant in eastern Kentucky, USA is nearing completion. The plant will have an initial capacity of **10,000** tons per annum, with the ability to expand to **20,000** tons per annum for a small additional investment.

Carbonxt has contributed USD \$5.5 million to NewCarbon Processing, LLC (“NewCarbon”), alongside its US partner KCP. Carbonxt currently holds a 35.5% ownership interest in NewCarbon, with options to invest a further USD \$4.5m to move to 50% ownership interest.

Whilst entry into the US water market through the Kentucky plant is particularly exciting, it does not depend on the introduction of the PFAS legislation for viability. However, the emerging consensus among market analysts is that the implementation of stricter and legally enforceable PFAS limits on drinking water provides the framework for a three to five-fold increase in the broader addressable market.

As a result of the impending introduction of the PFAS rules, it was decided by NewCarbon to re-design the existing plant configuration to include the ability to directly produce Granular Activated Carbon, as well as the production of AC pellets.

We believe this change will accelerate the ramp-up of revenue from the facility, at a time of a supply shortage in the GAC market. This is an important strategic change for the Company allowing a ramp-up in volumes produced from the opening of the facility until December 2024 from that previously forecast.

The Company has experienced some recent delays in the testing of the front-end equipment and processes due to the non-delivery of electrical equipment and the control systems by third parties. The electrical equipment is now on site, and we expect the control systems to be delivered imminently, enabling the provision of pellet samples to prospective customers.

Shown overpage are some recent images of the ongoing construction activity at the plant, which highlight the substantial progress achieved to date as the facility nears first production.

Pellet Production



Image 1: Activated Carbon pellet plant close to completion ahead of first production run



Images 2 & 3: State-of-the-art manufacturing equipment for AC pellets now fully installed



NewCarbon Facility



Image 4: New Generation Production Facility (L) and Warehouse Receival/Storage Facilities (R)

Intellectual Property

The Company continues to develop its intellectual property portfolio with the recent granting of the following patents:

- US Pat App No 17/059,939 - Title: Magnetic Adsorbents And Methods Of Their Use For Removal Of Contaminants – Allowed and issue fee paid 04.5.2024;
Issue date pending.
- US Pat. No 11,911,727; Title: Magnetic Adsorbent, Methods for Manufacturing a Magnetic Adsorbent, and Methods of Removal of Contaminants from Fluid Streams – **Issued 02.27.2024.**
- US PAT No. 11,759,762; Title: High Mechanical Strength Sorbent Product, System, and Method for Controlling Multiple Pollutants from Process Gas –
Issued 09.19.2023.
- US Pat No 11,603,315; Title: Water Resistant And High Strength Carbon Products – **Issued 03.14.2023.**

Summary and Financial Outlook

Our pending new activated carbon plant in Kentucky is progressing very well and bringing this plant successfully online is the key focus of the Group at this time.

This announcement has been authorised for release to ASX by the Board of Directors of Carbonxt Group Limited.

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About Carbonxt

Carbonxt (ASX:CG1) is a cleantech company that develops, and markets specialised Activated Carbon products, primarily focused on the capture of mercury and other contaminants in industrial processes that emit substantial amounts of harmful pollutants. The Company produces and manufactures Powdered Activated Carbon and Activated Carbon pellets for use in industrial air purification, wastewater treatment and other liquid and gas phase markets.