Origin Materials, Inc.
4Q22 Earnings Conference Call Script
February 23, 2023

Operator

Thank you for standing by, this is the conference operator. Welcome to the Origin Materials Fourth Quarter 2022 Earnings Call. As a reminder, all participants are in listen-only mode and the conference is being recorded. After the presentation, there will be an opportunity to ask questions. To join the question queue, you may press * then 1 on your telephone keypad. Should you need assistance during the conference call you may signal an operator by pressing * and 0.

I would now like to turn the conference over to Ashish Gupta, Investor Relations. Please go ahead.

Ashish Gupta, Investor Relations

Thank you and welcome everyone to Origin Materials' Fourth Quarter 2022 Earnings Conference Call. Joining the call today from Origin Materials are Co-CEO Rich Riley, Co-CEO and Co-founder John Bissell, and CFO Nate Whaley.

Ahead of this call, Origin issued its fourth quarter press release and presentation which we will refer to today. These can be found on the Investor Relations section of our website at originmaterials.com.

Please note on this call, we will be making forward-looking statements based on current expectations and assumptions, which are subject to risks and uncertainties. These statements reflect our views as of today, should not be relied upon as representative about views of any subsequent date, and we undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements in light of new information or future events. These statements are subject to a variety of risks and uncertainties that could cause actual results to differ materially from expectations. For further discussion of the material risks and other important factors that could affect our financial results, please refer to our filings with the SEC including our Quarterly Report on Form 10-Q dated November 3, 2022.

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In addition, during today's call, we will discuss non-GAAP financial measures, which we believe are useful as supplemental measures of Origin Materials' performance. These non-GAAP measures should be considered in addition to and not as a substitute for, or in isolation from GAAP results. You will find additional disclosures regarding the non-GAAP financial measures discussed on today's call in our press release issued this afternoon and our filings with the SEC, each of which is posted on our website. The webcast of this call will also be available on the Investor Relations section of our company website.

With that, I will turn the call over to Rich.

Rich Riley, Co-CEO, Origin Materials

Thank you, Ashish, and thanks to everyone for joining us. For today's presentation we will be referring to the slides that were posted to the Investor Relations section of our website earlier this afternoon. I will start by reviewing Q4 highlights, then provide a commercial and regulatory update. I will then turn it over to John who will discuss construction progress on Origin 1 and Origin 2, our Origin 1 platform development and application strategy, and our new strategic partnership with Avantium to accelerate the mass production of FDCA and PEF. Nate will wrap up with a financial overview.

We will begin on slide 3. We continue to execute on our plan and make progress on our mission to enable the world's transition to sustainable materials.

First, we have seen a more than ninefold increase in our customer demand since our announcement to become a public company in February 2021, with offtake and capacity reservations increasing to $9.3 billion dollars as of today. Customer demand remains strong and broad based and we continue to expand the breadth of industries and end-markets that we serve.

As previously disclosed, due to strong customer demand, we are substantially committed for our Origin 2 para-xylene and PET capacity. As such, beginning in the fourth quarter, our sales and marketing team has shifted its focus from active marketing of PET towards higher margin products such as carbon black and advanced CMF-derived products including FDCA and PEF for Origin 2 and beyond.

Second, as announced in January, Origin 1 is mechanically complete and commissioning is underway, with the completion of plant commissioning and start-up expected in Q2 2023. Since mechanical completion, work onsite has continued, including electrical work and further technology refinement.

Third, continuing on the next slide: regarding Origin 2, in early January, we announced the final approval from the Louisiana State Bond Commission and preliminary approval from the Louisiana Public Finance Authority for the issuance of up to $1.5 billion dollars of tax-exempt bonds, inclusive of the previously announced expected $400 million dollars in Private Activity Bond volume cap allocation for financing the construction of the plant. We continue to expect that Origin 2 can be fully funded from its existing cash on hand, previously indicated traditional project financing, and potentially strategic partnerships. As Origin has an ongoing global technology licensing effort and an active government affairs team, we anticipate potentially strategic partnerships and federal incentives programs to play a meaningful role in the financing of Origin 2. We continue to make progress on front-end design, construction planning, and financing. We have also made progress developing new products and applications which may be incorporated into the design of the plant, such as FDCA, PEF, as well as biofuels from an “oils and extractives” stream co-produced alongside CMF and HTC and which has not been included in previous plans. We expect to provide an update on new product offerings and construction plans for the Origin 2 plant in mid-2023.

Fourth, as I just touched on, we are seeing significant opportunities, outside of PET and para-xylene, to leverage our versatile platform technology to commercialize pathways for higher-value applications for our intermediates CMF and HTC, such as FDCA and carbon black. We are exploring or qualifying FDCA, epoxies and resins, surfactants, sustainable carbon black, bio-asphalt, fuel pellets, as well as biofuel and bio-solvents. As part of this development work, Origin has entered into a strategic partnership with Avantium to accelerate the mass production of the advanced chemicals and plastics FDCA and PEF, which John will discuss in more detail.

And finally, we are providing 2023 guidance for revenue of $40 to $60 million dollars and Adjusted EBITDA loss of $50 to $60 million dollars. Our estimates assume a gradual production ramp at Origin 1 as the new supply chain becomes established with revenue expected to be booked starting in Q3 2023.

Now, turning to slide 5, I'd like to provide a brief overview of Origin for those who are new to the story. Origin was founded with the mission to help solve climate change by enabling the world's transition to sustainable materials. Our patented drop-in core technology, attractive unit economics, and carbon impact have gained the support of a growing list of major global brands and investors spanning an increasingly diverse range of consumer and industrial end-markets. Our list of strategic partners includes industry leaders such as Danone, Nestlé Waters, PepsiCo, Ford Motor Company, Mitsubishi Gas Chemical, Kolon Industries, PrimaLoft, Solvay, Mitsui & Co, Minafin Group, LVMH Beauty, Revlon, Mitsubishi Chemical Group, Kuraray, Intertex World Resources, and ATC Plastics.

Our CPG partners have publicly disclosed their intent to migrate 100% of their current petroleum-based PET consumption to decarbonized and recycled materials. After extensively evaluating our technology and testing our products, these market leaders have made significant financial contributions to Origin, both as investors and customers, demonstrating their environmental commitment and confidence in our technology and products. They have signed multi-year off-take contracts worth hundreds of millions of dollars.

Over the past year, geopolitical tensions, inflation, rising interest rates, and escalating energy prices have highlighted the urgency with which the world needs to transition to more sustainable and less volatile energy solutions. The carbon intensive nature of the plastic industry, where over 99% of product is made from fossil fuels, has placed the industry under considerable pressure to dramatically transform the way it produces and uses plastic both for environmental and economic considerations. Origin offers an entirely circular plastic solution: carbon-negative, recyclable PET, which the world's plastic recycling infrastructure is already designed to collect, sort, and re-use, with the critical added benefit of removing CO2 from the atmosphere.

With 91 percent of the global economy now covered by "net zero" pledges, the urgency with which businesses need to adopt more sustainable practices extends well beyond plastics. And, while there has been some progress made in reducing greenhouse gases from shifts to renewable energy sources and electric vehicles, it is clear that reducing emissions from energy use alone is insufficient to achieve the goals and commitments established by companies and governments. As a result, in the near-term, we believe that these companies will need to integrate decarbonized materials into their supply chains. As such, we expect demand to remain well ahead of our projected supplies for the foreseeable future.

Further, we remain encouraged by the strong favorable tailwinds that we continue to see for our technology and business model, with some of the world's largest public companies committing to zero-carbon mandates and governments increasingly enacting regulations and funding investments to tackle climate change.

Turning to slide 6, the Inflation Reduction Act, or IRA, which passed in August 2022, is expected to provide approximately $369 billion dollars in direct investment related to climate solutions. As we detailed on our last call, we are excited by the support the bill has received and see multiple meaningful funding opportunities that we plan to provide more detail on as the legislation is finalized. We remain optimistic that the funding offered by the IRA is relevant to us, and are exploring several paths of eligibility for programs including the Section 48C Advanced Manufacturing Tax Credit, and the Advanced Industrial Facilities Deployment

Program. These programs are expected to start receiving initial applications in March with decisions anticipated by year-end.

In addition to the IRA, we are exploring opportunities for funding and financing under the 2021 Infrastructure Investment and Jobs Act, or IIJA. Origin has identified more than a dozen IIJA initiatives that may potentially assist in financing a variety of Origin investments, most notably Origin 2 and infrastructure improvements in and around the Geismar, Louisiana site.

Turning to slide 7, we continue to make steady progress commercializing the business, and have grown customer demand by more than $300 million dollars since our third quarter earnings call, for a total of $9.3 billion dollars today, made up of offtake agreements and capacity reservations. This represents a more than ninefold increase since we announced our intent to go public in February 2021. As a refresher, capacity reservations are signed agreements designed to lead towards take-or-pay contracts and revenue once our plants are complete. They give us and our customers more time to negotiate a take-or-pay offtake agreement, which typically is a much longer document that meets the requirements for project financing.

We are also pleased to tell you about a new strategic relationship with a major global chemical company. We continue to see considerable opportunities to expand into new end markets and applications, and we look forward to providing more detail about this partnership, as well as others, when appropriate.

As previously mentioned, we continue to expand the breadth of industries and end-markets that we serve, from global CPG brands like Pepsi, Danone, and Nestlé Waters to automotive leaders like Ford and specialty chemical innovators like Solvay and Mitsubishi Chemical Group, to ultra-luxury brands like LVMH Beauty and iconic cosmetics brands like Revlon. We also continue to see significant opportunities to direct our intermediates toward higher margin products such as carbon black, for example, where new strategic partnerships in 2022 with Mitsubishi Chemical Group, Intertex, and ATC Plastics provided us with significant momentum in this promising new product category. Notably, as we approach the start of Origin 1 operations, we expect to accelerate the development of high-performance products through technology collaborations and joint development agreements, or JDAs. As we've previously mentioned, our customers require more development and testing for some of these higher margin products than for drop-in ready para-xylene and PET. Origin 1 will produce CMF, HTC, and other intermediates in volumes that will enable customers to explore and qualify products and applications beyond PET and HTC fuel pellets.

In summary, our sales pipeline remains strong as reflected in over $9 billion dollars in customer demand. We continue to make inroads into new industries and have numerous active discussions with existing customers to expand their current agreements and with prospective customers to adopt our sustainable products.

With that, I would like to turn it over to John who will provide an update on Origin 1 and Origin 2, discuss our Origin 1 platform development and application strategy, and our recently announced strategic partnership with Avantium.

John Bissell, Co-CEO and Co-founder, Origin Materials

Thanks, Rich. I am going to begin on slide 8, with a construction update for Origin 1. For those interested in the Origin 1 story, and the continued progress made by our team, I would like to point you to a new construction update video that we posted today to the investor relations section of our website.

As announced in January, Origin 1, our first commercial manufacturing plant, located in Sarnia, Ontario, is now mechanically complete, in-line with our previously disclosed timeline. As part of mechanical completion, the plant's critical mechanical systems have been successfully installed and commissioning has begun. Work onsite will continue, including electrical work and further technology refinement. We expect the completion of commissioning and start-up in Q2 2023.

The mechanical completion of Origin 1 is our most important construction milestone to date. This is a large commercial-scale manufacturing plant with a lot of moving parts, and what we've been able to accomplish to date, despite the pandemic and related supply-chain headwinds, demonstrates the capability, efficiency, and efficacy of our project team. Leading up to the mechanical completion of the plant, we received and installed additional equipment, including wood handling equipment, piping, tanks, and control systems. Additionally, during the fourth quarter, we further strengthened our Origin 1 operations leadership team and support staff.

In our construction video, you can see the progress we've made since our last update in November. To give you a sense for the overall project, the construction of Origin 1 required over 17,000 meters of pipe, 730 metric tons of steel, over 75,000 meters of cable, and about 10,000 metric tons of concrete.

Looking ahead, we are excited to start up the plant, begin commercial production, deliver product to our customers, and take the next step in our journey to decarbonize the world's materials.

As we enter this next phase, I'd like to remind everyone of the purpose of Origin 1 and tell you about what we have planned for Origin 1 during 2023. While Origin 1 is a substantial commercial plant, Origin 2 is expected to be much larger, with far greater economies of scale. Origin 1 is first and foremost a strategic asset which we will use to qualify higher-value applications for our intermediates CMF and HTC. We will use Origin 1 not just to scale our technology, but to produce samples in higher volumes than we've ever produced at our pilot facilities. The samples and what we and our customers expect to learn from them are extremely valuable and, in the years to come, we expect will be instrumental in helping us deliver on the full promise of our carbon-negative technology platform. We expect to gradually ramp up Origin 1 operations throughout the year, aiming to optimally fulfill customer demand while we produce samples and qualify materials. We expect that revenue this year will be driven mostly by the pace at which the supply chain for these materials can be activated and by customer readiness to accept our materials. As noted, we expect Origin 1 to finish commissioning and start-up in Q2 and are confident that we will be able to meet our production goals to support our revenue guidance.

Turning to slide 10, I'd like to tell you more about the products. At Origin 1, we expect to develop new, performance advantaged products beyond PET and HTC fuel pellets so that customers can conduct development work and testing. Apart from para-xylene and bio-PET, using product from Origin 1 we plan to explore or qualify FDCA, epoxies, resins, surfactants, sustainable carbon black, bio-asphalt, fuel pellets, and biofuels. These products, which tend to be higher margin applications for our materials than PET and HTC fuel pellets, were part of the plan we initially articulated to investors during our go-public transaction. While some of these application development initiatives could be considered early, or exploratory, we expect to ultimately produce and sell our materials into some of these applications at commercial scale from Origin 2, Origin 3, and beyond, depending on what we learn during our product qualification at Origin 1.

The applications I've mentioned are higher margin for two reasons. First, they tend to be performance advantaged. And, second, technologically they are a natural fit for our platform and difficult for oil-based platforms to produce. Our customers are very interested in developing products with our materials and we expect to generate revenue not just through the sale of materials but, as Rich alluded to earlier, by engaging in joint development programs and achieving product qualification milestones like feedstock testing, sample delivery, and others. We look forward to updating you on these new product initiatives in the future.

Turning to Origin 2 on slide 11, we continue to make progress on the front-end design, construction planning, and financing of our second plant, to be built in

Geismar, Louisiana. The overall site plot plan and logistics plan have been developed. Notably, we have made progress on developing new products and applications which may be incorporated into the design of that plant, such as FDCA, PEF, as well as biofuels from an "oils and extractives" stream co-produced alongside CMF and HTC and which has not been included in previous plans. We expect to provide an update on new product offerings and construction plans for the plant in mid-2023.

As Nate will discuss in more detail, in January, we announced the Louisiana State Bond Commission final approval of up to $1.5 billion in tax-exempt bonds for the construction of Origin 2, providing further positive momentum for project financing, and potentially putting us on a path that would enable the debt financing of Origin 2 using entirely tax-exempt bonds.

I'd also like to provide you with some additional detail about what we're currently working on for Origin 2 in the area of product development. We have made progress developing new products and applications which may be incorporated into the design of Origin 2 such as FDCA, PEF, and biofuels. I highlight this because the markets for some of these new, functionally advantaged products are showing up sooner than we initially anticipated. While we originally expected our Origin 1 product development activities to result in new, performance-advantaged products that we would make at Origin 3, we now believe that some of those products could be pulled forward meaningfully and produced at Origin 2 as well. We are pleased to potentially add some of these products into the demand slate of Origin 2.

Turning to slide 13, I'd like to tell you more about our new biofuels initiative. We are excited to announce this quarter that we are exploring application development for biofuels from an "oils and extractives" stream co-produced alongside CMF and HTC. Biofuels are a rapidly growing market where demand is currently being met primarily via food-derived feedstock sources such as soy, used cooking oil, and tallow. In contrast, cellulosic biofuels or bio-intermediates made from wood waste reflect the future of the biofuel industry and are highly sought after as they do not compete with land for growing food.

Origin is uniquely positioned to deliver these renewable fuels using a third intermediate stream, "oils and extractives" which, as mentioned, was not included in our previous plans. Over the long-term, we see the potential for these cellulose-derived, low-carbon-intensity fuels to be used in transportation and marine fuel, industrial applications, and heat and power generation. We are currently in preliminary discussions with multiple strategic partners to advance this exciting development. And, we plan to provide you with periodic updates as we make progress on this important new business initiative.

Moving to slide 14, in February we announced a strategic partnership with Avantium, a leading technology company in renewable chemistry, to accelerate the mass production of FDCA and PEF for advanced chemicals and plastics. The partnership aims to bring together the strengths of Origin's patented carbon-negative technology platform, which turns the carbon found in sustainable wood residues into useful materials including chloromethylfurfural, or CMF, and its derivatives, with Avantium's YXY® Technology, which can be used to convert Origin's CMF derivatives into FDCA, the chemical building block for the polymer PEF.

The partnership represents a potential breakthrough in the commercialization of PEF, a polymer that we've been excited about for a long time. PEF offers an attractive combination of performance characteristics for packaging and other applications, including strong gas barrier properties, high heat resistance, improved degradability, and full recyclability. PEF can also serve as a replacement for glass and aluminum, offering superior break protection and inexpensive light-weighting for shipping, making it well-suited for oxygen sensitive products like carbonated sodas, protein shakes, and teas. The PEF produced is expected to be 100% plant-based, fully recyclable, have attractive unit economics, and to offer a significantly reduced carbon footprint, with superior strength, thermal properties, barrier properties, and degradability compared to today's widely used petroleum-based materials. We see an approximately $225 billion TAM for PEF across apparel, packaging, and PET applications.

Furandicarboxylic acid, or FDCA, the precursor to PEF, has many additional applications beyond PEF. Some have called FDCA the 'sleeping giant', named for its potentially massive impact across a broad range of industrial molecules including polyesters, polyamides, polyurethanes, coating resins, plasticizers, and other chemical products.

At the molecular level, the structure of FDCA is kinked and, consequently, it doesn't lie flat. When FDCA is assembled on a plane, it tends not to internally rotate. It turns out that a polymer's ability to rotate, or not, affects its functionality in important ways. One of those functions is gas barrier. When the molecules of a polymer can spin freely, gas molecules can pass through it like a revolving door. Since FDCA has a kink, it cannot rotate, and gas cannot pass through as easily. The structure of FDCA also changes the way it crystalizes. When FDCA is incorporated into a polymer, it crystalizes differently than a planar molecule like PET, and this feature allows us to change the applications that we can consider for polyesters. These are just some of the reasons why we are excited not just about PEF, but about incorporating FDCA into polyesters more broadly.

Regarding our relationship with Avantium: to accelerate the mass production of these materials, the partnership includes a licensing agreement providing Origin with access to Avantium's process technology for making FDCA and a conditional offtake agreement under which Avantium will supply Origin Materials with FDCA and PEF from its plants while we incorporate Avantium's process technology into the supply chain for future plants. By combining our platform, which can produce the FDCA precursor CMF and its derivatives from sustainable wood residues, with Avantium's

YXY® process technology, we aim to do something truly special in the polymers and materials industry at unit economics that work for our customers and us.

To summarize, I'm proud of how our team continues to execute against our Origin 1 and Origin 2 construction milestones. The mechanical completion of Origin 1 is an important milestone in our mission to enable the world's transition to sustainable materials. We are seeing significant opportunities to leverage our versatile platform technology to commercialize pathways for several interesting higher-value applications, and we are excited to accelerate the development of high-performance products through innovative partnerships.

And with that, I will turn it over to Nate to discuss some of the financial details.

Nate Whaley, CFO, Origin Materials

Thanks, John.

I will begin with commentary on our fourth quarter results, then provide our financing expectations for Origin 2, and finish with our outlook for 2023 revenue and Adjusted EBITDA.

Speaking to slide 16, fourth quarter operating expenses were $13.0 million compared to $7.8 million during the same period in the prior year. Full year 2022 operating expenses were $38.9 million compared to $26.9 million in the prior-year period.

Net income was $16.0 million for the fourth quarter compared to net income of $5.2 million in the same period in the prior year. Full year 2022 net income was $78.6 million compared to $42.1 million in the prior-year period.

Adjusted EBITDA loss was $9.2 million for the fourth quarter compared to a loss of $6.6 million in the same period of the prior year. Full year 2022 Adjusted EBITDA loss was $31.0 million compared to $20.0 million in the prior-year period.

Turning to our balance sheet, Origin ended the fourth quarter with $323.8 million in cash and cash equivalents and marketable securities.

Regarding the financing of Origin 2, in early January, we announced that the Louisiana State Bond Commission unanimously passed a resolution granting its final approval of the issuance of up to $1.5 billion of tax-exempt bonds to support the construction and commissioning of Origin 2. This amount is inclusive of and builds on the strong foundation of the previously announced expected $400 million in Private Activity Bond volume cap allocation.

Origin's use of solid waste feedstock to produce carbon negative materials enables the Company to use these tax-exempt bonds towards the financing of the Origin 2 project. Bank of America, a global investment bank and financial services company, has been engaged by Origin to underwrite the bonds and market them to investors, which could enable the debt financing of Origin 2 using entirely tax-exempt bonds. As we've previously discussed, we also anticipate various federal tax credit, grant, loan, and other programs promoting advanced manufacturing from the Inflation Reduction Act to be incrementally beneficial for the financing of Origin 2 once the details of those programs are finalized by the relevant government agencies.

We expect to provide an update on Origin 2 in mid-2023. As we have highlighted on our previous earnings calls, inflationary pressures remain an area of focus and something that we continue to monitor closely.

Origin continues to work with leading financial institutions on other forms of traditional private financing and federal loan programs, including through the United States Department of Agriculture and Department of Energy, and to pursue other local, state, and federal incentives programs to optimize the financing of Origin 2, including certain 2021 Infrastructure Investment and Jobs Act and 2022 Inflation Reduction Act provisions. As John mentioned, we continue to expect that Origin 2 can be fully funded from its existing cash on hand, previously indicated traditional project financing, and potentially strategic partnerships. Given Origin's ongoing global technology licensing effort and an active governmental affairs team, we anticipate potentially strategic partnerships and federal incentives programs to play a meaningful role in the financing of Origin 2.

To wrap up with our outlook for the full-year 2023, we are providing 2023 guidance for revenue of $40 million to $60 million and Adjusted EBITDA loss of $50 million to $60 million. As Rich mentioned, our estimates assume a gradual production ramp at Origin 1 as the new supply chain becomes established, with revenue expected to begin in Q3 of this year.

With that, I will turn it back to Rich for closing remarks.

Rich Riley, Co-CEO, Origin Materials

Thank you, Nate. In closing, I am incredibly proud of our team's continued execution as we draw closer to commercial production at Origin 1, and encouraged by the strong momentum that we continue to see for our industry-leading technology as the world moves aggressively to a zero-carbon future.

I would like to thank all of our customers for their commitments to Origin, our team and construction and engineering partners for their contributions to our company's success, and our shareholders for their continuous support.

And with that, I would like to ask the operator to open the line for questions.