



**Origin Materials, Inc.**  
**1Q23 Earnings Conference Call Script**  
**May 10, 2023**

**Operator**

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Thank you for standing by, this is the conference operator. Welcome to the Origin Materials First Quarter 2023 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**

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Thank you and welcome everyone to Origin Materials' First Quarter 2023 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 has issued its first 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](https://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 on the material risks and other important factors that could affect our financial results, please refer to our filings with the SEC including our Annual Report on Form 10-K filed on February 23, 2023,



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as amended on April 28, 2023. 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**

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Thank you, Ashish, and thanks to everyone joining us. Today 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 Q1 highlights, then provide a commercial and regulatory update. I will then turn it over to John who will discuss Origin 1, Origin 2, and application development. 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, customer demand remains strong and broad based, with offtake and capacity reservations exceeding \$9.3 billion dollars. As of February 2023, our commercial strategy has evolved from demand generation to revenue generation and the development of higher margin products. As such, we do not plan to provide quarterly updates to our total signed offtake agreements and capacity agreements going forward, but will provide updates as appropriate. We are also pleased to announce that we are reporting our first revenue this quarter, generated by joint development agreements and our supply chain activation program. Our supply chain activation program is the set of activities we engage in to develop our



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commercial and logistical capabilities for delivering product and to establish relationships with vendors and customers across the supply chain.

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.

Third, we continue to make progress on the front-end design, construction planning, and financing of Origin 2. We continue to expect that Origin 2 can be fully funded from a combination of existing cash on hand, previously indicated traditional project financing, and potential strategic partnerships. We plan to provide an update on new product offerings and construction plans for the Origin 2 plant in August 2023, during our Q2 earnings call.

And finally, we are maintaining 2023 guidance for revenue of \$40 million to \$60 million dollars and Adjusted EBITDA loss of \$50 million to \$60 million dollars.

We continue to see strong, favorable tailwinds for our technology and business model. Turning to slide 5, the Inflation Reduction Act, or IRA, is expected to provide approximately \$369 billion dollars in direct investment related to climate solutions. Origin is actively exploring several IRA-funded programs, including the Department of Energy's Advanced Industrial Facilities Deployment Program, or AIFD, which we expect to hear results from by the end of the year, and the Section 48C Advanced Manufacturing Tax Credit. We remain optimistic that these programs could provide meaningful support for the construction of Origin's plants.

Finally, in March, the Biden Administration released a report titled "Bold Goals for U.S. Biotechnology and Biomanufacturing." The report's stated objectives include both climate and supply chain related directives that we believe could create positive momentum for Origin in securing additional funding and deploying our platform.



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Turning to slide 7, in early May, we were thrilled to announce a strategic partnership with Indorama Ventures Public Company Limited. For those not familiar with Indorama, they are one of the world's leading petrochemicals producers and the world's largest producer of virgin and recycled PET resins, with about 26,000 employees worldwide, and close to \$19 billion in 2022 sales. This is a highly strategic relationship for Origin as Indorama Ventures has made meaningful pledges related to sustainability as part of its Vision 2030 plan, including commitments to invest \$8 billion dollars in recycled and bio-based plastics in pursuit of its goal of increasing the use of circular or bio-renewable feedstocks. Origin's technology could enable Indorama to enhance the value of its existing global petrochemical manufacturing footprint while supporting the company's Vision 2030 plan building on its industry leadership in sustainability.

As part of the strategic partnership, we have signed a memorandum of understanding to explore initiatives related to the rapid commercialization of low-carbon, bio-based materials. The initiatives include evaluating the use of existing Indorama units in the USA with some modification to commercially produce bio-based materials. Under this arrangement, Indorama would convert derivatives of Origin's platform chemical CMF into various sustainable chemicals and bio-based plastics. Under the MOU, Indorama and Origin will also study the potential to use production samples of bio-based materials in limited-volume product launches in partnership with high-profile brands. The materials are anticipated to be used in packaging, textiles, films, and automotive applications and could include bio-PET, bio-PTA, the advanced bio-based chemical FDCA, and co-polyesters that have an advantage over traditional PET plastic.

Turning to slide 8, in mid-April, we were excited to announce a strategic partnership with SCGP, a leading multinational consumer packaging solutions provider, to explore licensing Origin technology for use in an Asia-based manufacturing facility. The strategic partnership includes a joint development agreement between Origin and SCGP whereby we aim to develop sustainable, carbon-negative products from



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eucalyptus feedstocks provided by SCGP for applications in food packaging, logistics, automotive, and construction. As part of the JDA work, we have successfully processed and tested SCGP's eucalyptus feedstock at our West Sacramento, California, pilot facility, confirming similar yields to other sustainable wood residues that we have evaluated. As a feedstock, eucalyptus offers several benefits including rapid growth, adaptability to diverse environments, and other properties useful for industry.

Turning to slide 9, in late March, we were pleased to announce a strategic partnership with Hyosung Advanced Materials Corporation, a Korea-based industrial materials company, to industrialize sustainable high-value specialty materials for use in a wide range of end markets and applications, including batteries, automotive, and apparel. As part of the partnership, Hyosung signed a multi-year capacity reservation agreement to purchase sustainable carbon-negative materials from Origin, including PET and a hybrid polymer PET/F, which is a blend of PET and FDCA, for use in tire cord applications, as well as HTC for use in battery materials, and furanic derivatives for use in spandex applications in the apparel industry.

Turning to slide 10, in mid-April, Origin and the Green Chemistry Division of the Minafin Group, a global fine chemical company, announced a new commercial arrangement whereby Minafin will become Origin's manufacturing partner for the downstream supply chain of Origin 1. The initiative, which expands upon our previously announced strategic partnership with Minafin to industrialize sustainable chemicals, aims to further build on the strengths of Origin's patented technology platform and Minafin's manufacturing capability, process know-how, supply chain strength, and deep expertise in furanic specialty products. As part of the manufacturing initiative, CMF produced by Origin at Origin 1 will be delivered to Minafin, which will convert the CMF into downstream intermediates and products. The initiative is expected to position the companies' complementary technologies to grow the value of the bio-based supply chain for high-value chemicals and materials including bio-based PET.



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In addition, this quarter we amended our existing agreement with PepsiCo. We have increased the flexibility of the agreement by expanding the slate of products that may be supplied as well as which plants may supply those products, with final volumes, product mix, and plants to be mutually agreed upon.

To wrap up our commercial update, our sales pipeline remains strong. We continue to expand the breadth of industries and end-markets that we serve and identify opportunities to direct our intermediates towards higher margin products.

Turning to slide 11, in early April, we were thrilled to announce the appointments of Craig Rogerson and Tony Tripeny to the Origin Board of Directors. They bring a wealth of experience in operations, strategy, corporate finance, and M&A to the company from leading world-class chemicals and materials science companies which will prove to be a tremendous benefit as we begin commercial production.

Craig Rogerson has four decades of executive experience leading private and publicly held specialty chemical companies, having most recently served as Chairman, and President and CEO of Hexion Inc., a leading global producer of adhesives and performance materials that enable the production of engineered wood products and other specialty materials. Prior to being acquired for \$1.9 billion dollars in 2022 by American Securities, Hexion had over \$2 billion dollars in annual sales. Previously, Craig served as Chairman, President and CEO of Chemtura Corporation, a global developer, manufacturer and marketer of engineered industrial specialty chemicals. Prior to being acquired for \$2.5 billion dollars in 2017 by Lanxess AG, Chemtura generated \$1.7 billion dollars in 2015 revenue.

Tony Tripeny brings over three decades of significant operational, strategy, and M&A experience, extensive knowledge of the manufacturing, technology, and materials science industries, and a background in international corporate finance. He most recently served as a director at Mesa Laboratories, a global leader in the design and manufacturing of life science tools and critical quality control products and services, many of which are sold into niche markets driven by regulatory requirements.



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Previously, Tony had a 36-year career with Corning, a global leading innovator in materials science with more than \$10 billion dollars in annual revenue, where he had held various progressive leadership roles in corporate accounting and finance, including Chief Financial Officer.

Craig and Tony will be outstanding additions to our Board of Directors and we are thrilled to welcome them. We would also like to thank Benno Dorer, who resigned from the Origin Board on May 8, and who was recently appointed CEO of VF Corp, for his contributions during his tenure with Origin.

With that, I would like to turn it over to John who will discuss Origin 1, Origin 2, and product development.

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

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Thanks, Rich. I will begin on slide 12, with an update for Origin 1.

Origin 1, our first commercial manufacturing plant, located in Sarnia, Ontario, remains on track with commissioning expected to complete and plant start-up to take place in Q2, in-line with prior guidance. As announced in January, Origin 1 is mechanically complete and commissioning is underway, with work onsite progressing favorably. During the first quarter, we hired our director of manufacturing, who brings valuable experience to the team, including experience working at carbon black producers such as Cabot. Looking ahead, we are excited to start up the plant, begin commercial production, deliver product and samples to customers, and take the next step in our journey to decarbonize the world's materials.

Origin 1 is first and foremost a strategic asset that we will use to qualify higher-value applications for our intermediates CMF, HTC, and oils and extractives. Apart from para-xylene and bio-PET, using product from Origin 1, we plan to explore or qualify



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FDCA, epoxies, resins, surfactants, sustainable carbon black, bio-asphalt, and biofuels. We expect to gradually ramp up Origin 1 operations, aiming to optimally fulfill customer demand while we produce samples and qualify materials. We remain confident that we will be able to meet our production goals to support our revenue guidance.

In product development, we continue to strengthen our IP position, with additional patent filings in 5 new patent families, including for some very interesting potential intermediates, products, and applications, advances in FDCA-related polymers that improve overall polymer performance, HTC and the use of HTC in rubbers, among others. In March, we announced the achievement of a significant milestone in our carbon black program, validating the suitability of our HTC-derived carbon black for automotive tires and mechanical rubber goods. To understand how we achieved this milestone, I'd like to offer some additional background on HTC and what makes it so special and valuable to our customers.

Starting with slide 13, Origin's HTC, or hydrothermal carbon, is believed to be a unique material, not produced anywhere else in the world by any process other than Origin's. HTC forms from the interaction of lignin and degraded CMF, or chloromethyl furfural, and related compounds during the conversion of the biomass in our core process.

Turning to slide 14, a scanning electron micrograph, SEM, image of Origin's HTC is shown alongside an SEM image of carbon black made from petroleum. Origin's HTC is morphologically quite similar to the carbon black from fossil-based materials, with primary particles clustered into "grapelike", or aciniform, aggregates with complex structure.

Beyond the immediate morphological similarity, Origin's HTC offers an enhanced ability to manipulate surface chemistry and morphology, or the shape, size, and





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connectivity of the particles. This “tunability” makes HTC a particularly versatile material in addition to HTC offering sustainability and performance benefits for a given application. The value of this tunability is that it allows us to tailor our material to meet the needs of customers and to deliver product for a wide range of carbon black specifications, such as for tires and mechanical rubber goods, as well as develop products for applications like inks and paint pigments.

HTC has two characteristics which can be readily tuned. First, we can control its surface chemistry. Origin’s HTC starts out with a level of surface functionality that fossil carbon black can obtain only with great difficulty and expense. Typically, carbon black from petroleum starts out hydrophobic, with few functional groups, and expensive treatment is required to make it more hydrophilic to attain the desired performance. Furthermore, the treatment of fossil-based carbon black has a limit and fossil-based carbon black cannot practically attain the hydrophilicity that HTC naturally has. In contrast, by treating HTC, we can remove functional groups to vary the hydrophobic and hydrophilic behavior.

Second, we can change the morphology of HTC. This is valuable for carbon black, where the ability to meet different specifications and performance criteria is determined in large part by particle size, shape, and structure. We can affect both the micro-morphology and macro-morphology of the HTC clusters: micro-morphology, by the process conditions of our reaction, and macro morphology, by post processing.

Putting it all together, the tunability of HTC gives us the ability to adjust surface chemistry and morphology, thus providing us with tremendous power over the material’s performance. Having established this context, I’d like to tell you about our recent HTC milestone.



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Turning to slide 15, we were excited to provide an update in March on our continued strong progress in carbon black development. Specifically, we produced a carbon black that, when blended with fossil-based carbon blacks, performed better than existing fossil-based carbon black, specifically N660, a widely used and technically demanding performance specification for automotive tires and mechanical rubber goods. The achievement validates the potential for our sustainable, bio-based, low-carbon carbon black to be used broadly in the large, rapidly growing carbon black market. The N660 specification represents a “gold standard” which Origin’s product has achieved, indicating the potential for widespread adoption of our carbon black not only in N660 applications, but in less technically demanding specifications, as well.

We look forward to bringing a host of benefits to this application space:

- One, our material is a sustainable replacement for fossil-based carbon black, with up to 100% bio-content and low carbon intensity.
- Two, our material shows no detectable levels of polycyclic aromatic hydrocarbons, or PAHs.
- Three, our material is expected to provide stable pricing largely de-coupled from the petroleum supply chain, which is exposed to more volatility than supply chains based on sustainable wood residues.
- Four, we can expect our carbon black to be an attractive alternative to reclaimed carbon black since it does not suffer the same performance limitations and, as we have shown, can even exceed the performance of fossil-based materials.



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- Five, we don't expect the production of Origin's carbon black to be affected by the same regulatory limitations in the United States as fossil-based carbon black.
- And six, finally, our studies have demonstrated that we can achieve superior dispersion and tan delta, qualities which offer performance advantages in tires related to durability and fuel economy.

Now, having made several carbon black blends that exceed the performance of N660, a highly technical carbon black specification, we look forward to further increasing the proportion of our material in similar blends in the future, typical of carbon black development programs for tires and other applications.

Turning to slide 17, our HTC team has done an incredible job getting us to this point. We have a spectacular group of scientists, engineers, and commercial folks that specialize in carbon black and other carbon products. Everything from application development, process engineering, materials engineering, materials analysis, and regulatory management are represented at the highest level in our team, and we are tremendously excited about this group of people and what they can accomplish.

Regarding Origin 2, our second plant, to be built in Geismar, Louisiana, we continue to advance front-end design, construction planning, and financing. We continue to make progress developing new products and applications which may be incorporated into the design of the plant such as FDCA, which can be converted into PEF, and carbon black and biofuels. We expect to provide an update on new product offerings and construction plans for the plant in August 2023.

To summarize, I'm proud of how our team continues to execute against our Origin 1 and Origin 2 milestones. The approaching start-up of Origin 1 is an exciting milestone in our mission to enable the world's transition to sustainable materials. We continue to advance our product development and commercialization road map, create



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valuable new strategic partnerships, and deepen our existing relationships to carry out our shared vision of a more sustainable, better performing chemicals and materials industry.

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

**Nate Whaley, CFO, Origin Materials**

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Thanks, John.

I will begin with the commentary on our first quarter results, then provide our financing expectations for Origin 2, and finish with an update on our 2023 outlook.

Speaking to slide 18, we reported quarterly revenue for the first quarter of \$1.7 million dollars associated with JDAs and Origin's supply chain activation program compared with no revenue in the prior-year period.

First quarter operating expenses were \$13.0 million dollars compared to \$7.6 million dollars during the same period in the prior year.

Net income was \$9.8 million dollars for the first quarter compared to net income of \$7.3 million dollars in the same period in the prior year.

Adjusted EBITDA loss was \$9.7 million dollars for the first quarter compared to a loss of \$6.5 million dollars in the same period of the prior year.

Turning to our balance sheet, Origin ended the first quarter with \$263.9 million dollars in cash and cash equivalents and marketable securities. A meaningful portion of Q1 cash expenditures were related to the completion of Origin 1 and are therefore non-recurring.

Regarding the financing of Origin 2, in early January, we announced that the Louisiana State Bond Commission unanimously passed a resolution granting its final



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approval of the issuance of up to \$1.5 billion dollars of tax-exempt bonds to support the construction and commissioning of the plant. This amount is inclusive of and builds on the strong foundation of the previously announced expected \$400 million dollars 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 has been engaged by Origin to underwrite the bonds and market them to investors, which could enable the financing of the debt of Origin 2 using entirely tax-exempt bonds.

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 as we've previously discussed, we also anticipate various state, local, and federal tax credit, grant, loan, and other programs, including those promoting advanced manufacturing from the Inflation Reduction Act, to be incrementally beneficial for the financing of Origin 2. As Rich mentioned, we continue to expect that Origin 2 can be fully funded from a combination of existing cash on hand, previously indicated traditional project financing, and potential strategic partnerships. Given Origin's ongoing global technology licensing effort and an active governmental affairs team, we anticipate strategic partnerships and federal incentives programs to play a meaningful role in the financing of Origin 2. Again, we expect to provide an update on Origin 2 in August, 2023.

I will now wrap up with our 2023 outlook. We are maintaining our guidance for revenue of \$40 million to \$60 million dollars and an adjusted EBITDA loss of \$50 million to \$60 million dollars.

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



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**Rich Riley, Co-CEO, Origin Materials**

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Thank you, Nate. In closing, I would like to thank our customers, our team, and our partners for their contributions to our company's success, and our shareholders for their support. I am incredibly proud of our team's continued execution as we draw closer to commercial production and taking the next step in the world's "once in a planet" transition to sustainable materials.

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