



**Origin Materials, Inc.**  
**2Q21 Earnings Conference Call Script**  
**August 12, 2021**

**Operator**

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Thank you for standing by, this is the conference operator. Welcome to the Origin Materials Second Quarter 2021 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' Second Quarter 2021 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 second 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](http://originmaterials.com).

Please note that 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 only as of today, should not be relied upon as representative about views as 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.



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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**

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Thank you, Ashish, and thanks to everyone for joining us today. 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. We will begin on slide 3.

The second quarter of 2021 was momentous for Origin.

- **First**, as previously announced, we successfully completed the business combination in June and as of the end of the second quarter have \$471 million dollars in cash and equivalents on hand.
- **Second**, we made significant progress on our first commercial scale plants, Origin 1 and Origin 2, and are reaffirming our expectations as to capital budget, production timeline, and our anticipated ability to fully fund both projects from existing cash on hand and previously identified traditional financing sources.
- **And third**, our customer demand has more than tripled over the past six months, with offtake and capacity reservations of \$3.5 billion, as of today.

As this is our first earnings call, I'll start with an overview of Origin Materials and then provide a commercial update. I will then turn it over to John who will discuss



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Origin's intellectual property, core technology, updates on Origin 1 and Origin 2, and recent executive hires. Nate will wrap up with a financial overview.

Origin was founded in 2008 with the mission to help solve climate change by enabling the world's transition to sustainable materials. Our patented drop-in core technology, economics and carbon impact have gained the support of a growing list of major global brands and investors, including Pepsi, Nestlé, Danone, Ford and Mitsubishi Gas Chemical. The CPG companies mentioned have publicly disclosed their intent to migrate 100% of their current petroleum-based PET consumption to decarbonized and recycled materials. After extensively testing our technology, these market leaders have made significant financial contributions to Origin, both as investors and customers, demonstrating their environmental commitment and confidence in our technology.

We believe Origin is positioned to be an industry disrupter in the materials space at large commercial scale. Unlike other companies who serve smaller niche markets, we believe Origin is structurally advantaged to address an estimated trillion-dollar market that's just beginning to transition from petroleum feedstocks to sustainable ones, and that we're positioned to be the clear category leader based on the simple, yet powerful, fact that our technology was built around converting the lowest cost feedstock, wood residue, into decarbonized supply chain-ready materials.

While the big focus of the decarbonization movement among the media and investors has been electric vehicles and renewable energy, 45%<sup>1</sup> of the world's emissions come from the manufacturing of products, with a significant portion coming from underlying chemical materials. Over 10 million barrels of oil per day are used to create these materials, and the production process releases massive quantities of new carbon into the atmosphere. Origin's vision for the future is to replace these 10 million plus barrels per day with plant-based feedstocks.

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<sup>1</sup> Source: Origin Materials estimates, Climate Watch, the World Resources Institute (2020), ourworldindata.org.



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We think the best place to start the transition to sustainable plant-based materials is plastics, which represent an enormous and rapidly growing portion of the world's materials. When we say "plastics," we're not just talking about water bottles and other consumer packaging, that probably first come to mind. The majority of plastics are used in textiles, cars, and other household products. Just capturing a small portion of the incremental annual growth in plastics is more than enough demand to build our business.

Importantly, our solution is designed not to require companies to change their products or processes. There are near zero switching costs because we produce a material identical to what they currently use. The only difference is that our feedstock is derived from plants rather than petroleum. We think this is the path for us to deliver carbon-negative materials at massive scale, dramatically reduce carbon emissions, and create products that are readily recyclable within the existing global infrastructure.

Turning to slide 4, the attractiveness of our solution is what drove the early partnership and anchor investment from Danone, Nestle, and PepsiCo. Recently, we have also taken significant steps to commercialize the business by broadening our customer base beyond consumer packaged goods into apparel and industrial end-markets, including automotive.

In April, we announced a strategic partnership with PrimaLoft to develop carbon-negative insulating fiber for outdoor gear, bedding, and apparel. PrimaLoft makes high-performance insulation and fabric for over 900 global brand partners including iconic companies such as Patagonia, Lululemon, adidas, and Nike. This is a very significant partnership for us, an example of being able to partner with a company in the supply chain to deliver materials to hundreds of brands. Many apparel companies are eager to decarbonize, but they don't actually manufacture their own products. This is where our partnership with PrimaLoft can have a huge impact.



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During the second quarter we also announced the Net Zero Automotive Program with Ford Motor Company. Ford and other automakers have committed to electrifying a significant portion of global production, providing a tailwind for Origin. Because plastic helps make cars lighter and more energy efficient, EVs are estimated to use three times the amount of plastic per vehicle as internal combustion vehicles. Our Net Zero Automotive Program with Ford is a tremendous opportunity for Origin to work with an industry leader to de-carbonize a very large addressable market.

Our partnerships with Ford and PrimaLoft demonstrate the steps we have taken to further commercialize the business and expand our end-markets. Notably, corporate commitments to net zero are increasing daily and Origin is engaged with many of the world's largest companies to help them achieve their decarbonization and sustainability goals.

In addition to exciting customer and partnership announcements, we also announced last week that our CMF and HTC products have earned the U.S. Department of Agricultural (USDA) Certified Biobased Product Label. This is a coveted third-party verification that our products meet or exceed the biobased content requirement for the U.S. government. This certification qualifies our products for mandatory federal purchasing under the 2002 and reauthorized 2018 Farm Bill.

With that, I would like to turn it over to John for a technology overview and an update on Origin 1 and Origin 2.

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

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Thanks. I am going to begin on slide 5. As Rich mentioned, Origin's technology platform uses proven traditional chemistry to convert carbon-negative feedstocks like wood residues, post-consumer cardboard, mixed paper waste, and construction wastes into two principal intermediate chemicals: CMF and HTC.



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These chemical intermediates will be used to make materials, like PET, that currently use petroleum as a feedstock and energy source in their manufacture.

Moving to slide 6, what separates Origin from niche biomaterials companies is our proprietary CMF and HTC production processes which are based on sound, scalable, carbon-efficient technology.

The process to convert biomass is very carbon efficient—the vast majority of the carbon ends up as one of our products. This is in stark contrast to thermochemical processes, such as gasification or pyrolysis, and fermentation processes, which nearly invariably lose a substantial proportion of the carbon in the feedstock to emissions. This carbon efficiency contributes both to the extraordinarily competitive economics of our process and to the very low carbon intensity of the process.

While biologically-mediated processes are often hindered by any variation in feedstock, our homogeneous chemo-catalytic process is robust to a huge range of variation. Similarly, components of the feedstocks that are non-volatile—such as salts—can be show stoppers for thermochemical processes, but they are largely immaterial to the performance of our process. The flexible nature of our chemistry enables many different feedstocks to be used—saw mill and pulp mill residues, construction waste, agricultural waste, post-consumer paper packaging, pulpwood, and mixed paper waste. That feedstock flexibility directly contributes to the low cost and carbon impact of our products.

Finally turning to slide 7, our process is constructed entirely of conventional physical and mechanical processes that have been used in countless chemical processes for centuries. While the chemistry is new, the process physics are analogous to many processes that have been in widespread operation for generations—Kraft pulping among them. The use of conventional processes makes the technical scaling much more predictable and much lower risk, as, despite the vast number of chemical processes in operation that supply the physical goods of civilization, there are very few examples of unsuccessful scaling for technical reasons.



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Since founding the company in 2008, Origin has made substantial improvements on the technology through continuous innovation and licensing agreements. Today, we hold 19 families of patents protecting our proprietary production processes to make CMF, HTC, and their downstream products. We believe this IP provides a defensive moat around our technology.

Now on to slide 8, I will turn to our progress on Origin 1 and Origin 2. We are, of course, continually reviewing construction costs and timeline to assess macroeconomic perturbations such as inflation and supply chain disruption, and we are pleased to reaffirm our previously disclosed expected capital budget and production timelines for Origin 1 and Origin 2.

In terms of timing, we expect the construction of Origin 1 to be completed before the end of 2022, with commissioning and production at the plant thereafter. We are pleased to be working with leading capital projects partners Koch Modular Process Systems, Worley, KSH, and Jacobs.

As of June 30, 2021, installation of most foundations for building and process areas is significantly underway and on track for timely Origin 1 mechanical completion.

We had also completed fabrication of the modules that contain the principal equipment used for the conversion of biomass feedstock into high value chemicals. By the end of 2021, we expect the modules to be lifted and erected, roughly four months ahead of schedule.

Similarly, Origin 2 remains on track for completion by mid-2025. Further, we are working with Worley, Deloitte and Fisher International to select the site for Origin 2, which we expect to have designated by the end of 2021, in line with our prior forecasts.

Turning to slide 9, we thought it would be useful to provide more of the story behind Origin 1: How did it start, what do the modules look like, and what will it look like.



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You can see here the modules themselves. They're large, 60 to 75 tons each. The modules are onsite in Sarnia, Ontario. And ultimately, they will be interconnected and erected.

With slide 10, I'd like to provide additional background on how we got to where we are today. We spent over 10 years developing and proving out this process at bench and pilot scale. That translated to process design and engineering. Which in turn translated to these designs being fabricated in a shop. An advantage of doing modular construction is that it offers better control over environmental conditions, and therefore a more predictable schedule. Additionally, modular construction also gives you better control over the quality of the work. Here on slide 10 you can see our CTO, Ryan Smith, next to a vessel head in a module while it was in the shop.

And now with slide 11, we see that those modules were transported to our site in Sarnia, Ontario, Canada. Those modules will be erected onto the anchor bolts in the foundation. Other pieces of equipment, such as tanks, are also delivered onsite. We've labeled a 3D model that you have seen before: you can see the conveyor that moves feedstock into the system, the feedstock silo, the ISBL, or inside battery limits equipment, which is where the real chemistry happens, you can see the process building, where solids handling happens for HTC. You can also see more general items like the tank farm and an area for trucks to load and unload liquid materials, and you can see the brine regeneration area where we handle some of our aqueous streams. So, while there is work to be done other than the core process modules that are already fabricated and onsite, that work is generally routine and isn't particularly specific to our technology.

Lastly, moving to slide 15, I would like to talk to you about our efforts to strengthen Origin's leadership team. We were excited to welcome Jim Wells, Ben Freireich, and Madhu Anand, who will play an instrumental role in scaling our platform technology. Jim has an incredible background, he's an extremely experienced engineer and was





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instrumental in the execution of capital projects while at Dow Agriscience (now Corteva).

Madhu Anand brings extraordinary engineering, catalytic and processing expertise to Origin from Phillips 66, where she was the Chief Engineer of the Hydroprocessing and Naphtha Upgrading Unit.

Ben Freireich is a leading industry expert in solid particulate materials for both product and process R&D and joined us from PSRI, where he led applied process research efforts for a consortium of over 30 multinational corporations. We are excited he will be bringing that expertise to Origin.

Recently, we further strengthened our team with the addition of Bob Nissen, the Origin 2 Project Director, who has a background with BP and Jacobs. As well as David Ballow, Origin 2 Process Technology Director, who brings with him experience from Worley and Burns & McDonnell. We are happy to bring them both on board.

I look forward to their contributions for years to come. And with that, I will turn it over to Nate to discuss some financial details.

**Nate Whaley, CFO, Origin Materials**

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Thank you, John.

I will begin with some commentary on our second quarter results, provide a financing update for Origin 2, and finish with our 2021 outlook.

I will be speaking to slide 16, second quarter operating expenses were \$6.7 million compared to \$1.7 million during the same period in the prior year.

Adjusted EBITDA loss was \$3.0 million for the second quarter compared to a loss of \$1.6 million in the prior-year period.



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And finally, net income was \$62.5 million for the second quarter compared to a net loss of \$1.7 million in the same period in the prior-year.

As of June 30, 2021, Origin had 136.7 million shares outstanding excluding 4.5 million shares held by certain stockholders that are subject to forfeiture based on share price performance targets applicable to earnout shares.

Turning to our balance sheet. As a result of successful business combination with Artius, Origin ended the second quarter with \$471 million in cash and cash equivalents.

Based on preliminary feedback from leading financial institutions that specialize in financing similarly sized capital projects— which indicated that our financing assumptions are reasonable and executable—we are able to reaffirm our expectation of fully funding the construction of both plants using our existing balance sheet cash and cash equivalents and previously indicated traditional financing sources.

Upon completion of Origin 1 and Origin 2, we expect to begin generating positive EBITDA and anticipate our business will generate sufficient cash to allow us to build Origin 3 and beyond. Hence, we do not anticipate needing to raise additional equity capital to fund our current business or capital project needs. Further, we would note that we anticipate having approximately \$100 million of excess cash, beyond the capital budget for Origin 1 and 2. Finally, as John mentioned earlier, we have received many questions on inflationary pressures. We are continually updating our cost estimates in real time, and based on the current inputs we've received from vendors and suppliers, I am pleased to report projected construction costs are still within the overall capital budget.

Wrapping up with our full year 2021 outlook, we are expecting an adjusted EBITDA loss of up to \$25 million and capital expenditures of up to \$111 million consistent with our previous outlook.



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

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

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Thank you, Nate.

I would like to wrap up with three simple reasons that we are so excited about where Origin is today and what its future holds:

- First, we are the industry disrupter with a clear line of sight to commercial scale and the category leader in carbon-negative materials
- Second, demand is very strong and we think Origin will be supply constrained for the foreseeable future
- Third, our financing is on track or ahead of schedule to bring Origin 1 and Origin 2 online and begin production

Thank you for your time today. Now we'll open up the line for questions.