



Second Quarter 2021 Earnings Call

The world's leading carbon negative materials company

August 12, 2021

Forward looking statements and disclaimers

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Q2 2021 highlights

Origin's mission is to help drive the world's transition to sustainable materials by providing sustainable, plant-based, zero-carbon materials designed for "drop-in" use and at economics comparable to existing fossil-fuel based materials which are supported by a growing list of global brands, including Pepsi, Nestlé Waters, Danone, Ford and Mitsubishi Gas Chemical

Successfully completed public listing

- Successfully completed capital raise to fund construction of Origin 1 and Origin 2
- Cash and cash equivalents on hand of \$471 million on June 30, 2021

Significant progress towards our first two commercial scale plants

- Reaffirm the capital budget, expected production timeline and ability to fully fund both plants from cash on hand and traditional project financing sources
- Approximately \$100 million of excess cash, beyond the capital budget for Origin 1 and 2, for unforeseen contingencies in addition to substantial monetary contingencies already built into our capital project planning

Customer demand has more than tripled over the past six months

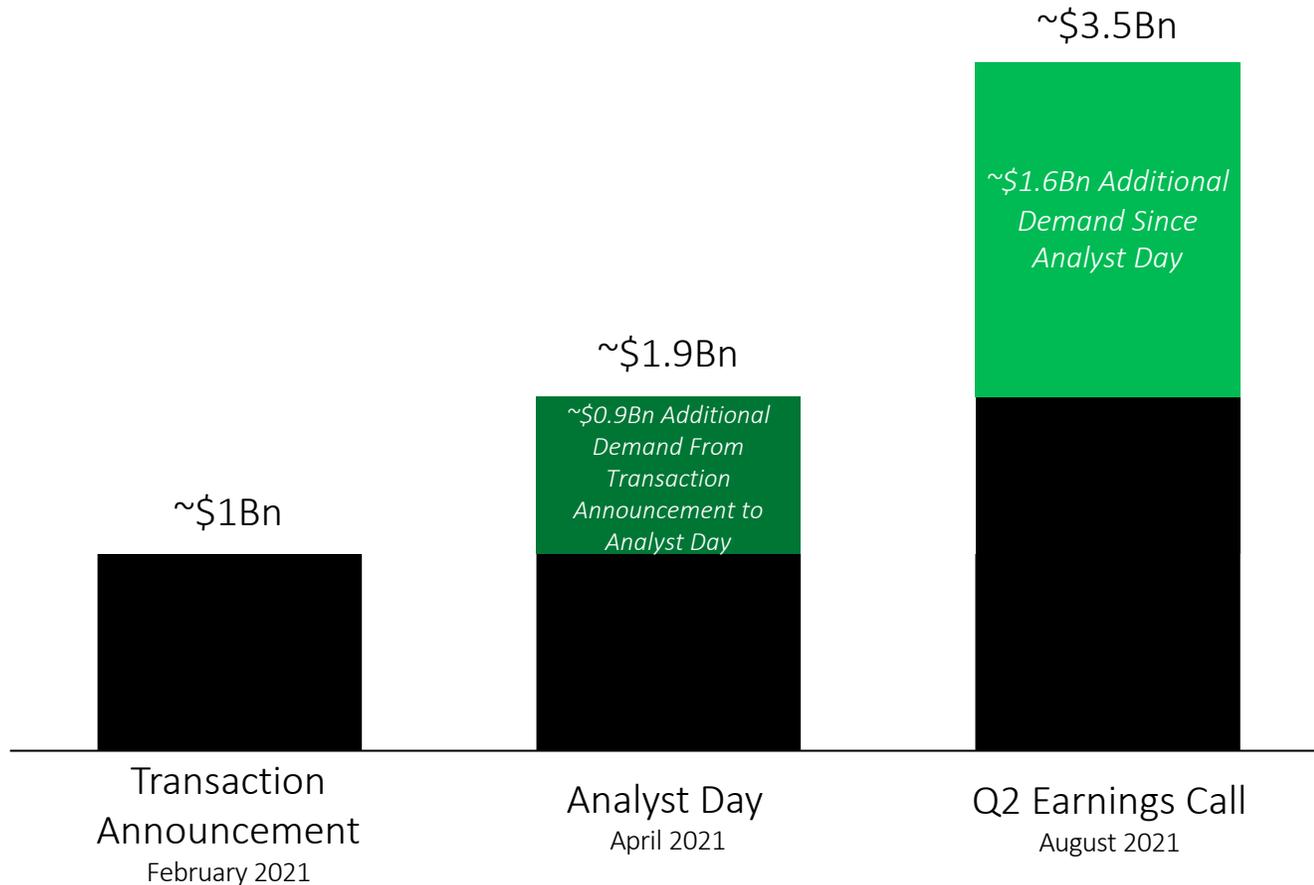
- Offtake and capacity reservation agreements now exceed \$3.5 billion¹
- Have taken significant steps to commercialize the business by broadening our customer base beyond CPG into apparel, automotive and industrial end-markets

1. Includes \$264Mn specified as customer option. Figures assume maximum offtake amounts and exercise of full customer option.

Origin has grown customer demand by ~\$2.5Bn since announcing transaction

Total demand is \$3.5Bn in either offtake agreements or capacity reservations¹

Customer Demand, \$Bn cumulative



Select Origin Customers & Partners



1. Includes \$264Mn specified as customer option. Figures assume maximum offtake amounts and exercise of full customer option. Source: Origin Materials.

Proven and scalable technology platform (1 of 2)

Origin's technology platform is based on proven, traditional chemistry to convert carbon-negative feedstocks

- Our technology platform converts feedstocks such as wood residues, post-consumer cardboard, mixed paper waste and other cellulosic materials into our two principal intermediate chemicals: CMF¹ and HTC²
- CMF and HTC are then used to make broadly used end products such as PET³, carbon black, etc. that currently use petroleum as a feedstock
- Our products are chemically identical to fossil-based materials in every way, with the only difference being that Origin's products are carbon negative
- Hence, our products can be dropped into existing supply chain without any modifications to the product design or equipment of our customers. This makes the adoption of our products and technology fast and easy

Origin's products have been tested and certified by independent third parties and customers

- Independent parties including the USDA and Deloitte have either independently tested or verified, and certified that our products are bio-based and carbon-negative
- Customers including Pepsi, Danone and Nestle have completed extensive testing of our products in their own production facilities and have signed long-term offtake contracts worth hundreds of millions of dollars in validation of our products and technology
- Our leading customers of Pepsi, Danone and Nestle had previously commissioned Deloitte to conduct an independent Life Cycle Analysis ("LCA") on our product's carbon negative claims. This Deloitte ISO compliant LCA analysis is available on our website.

Proven and scalable technology platform (2 of 2)

Origin's proprietary CMF and HTC production processes are based on proven, scalable and carbon efficient technology

Origin has developed its own proprietary in-house technologies since 2008

- Origin is differentiated from other biomaterials companies via our highly carbon efficient chemo-catalytic process as most of the carbon in our feedstock ends up in our products
- More novel technologies such as thermochemical--including gasification or pyrolysis--and fermentation processes lose a substantial portion of the carbon in the feedstock to emissions which significantly reduce their yield and unit economics
- Our homogenous chemo-catalytic process is robust to a large range of feedstock variation, enabling many different feedstocks to be used. Hence, we can choose inexpensive and sustainable non-food feedstock like wood residues, post-consumer cardboard, etc
- It's the combination of our technology's carbon efficiency (product yield) and the low cost of our non-food sustainable feedstock that allow our plant unit economics to be superior to other bio-based production technologies, even without assuming a "green premium" in our forecast
- Since our founding in 2008, Origin has made substantial improvements on our platform technology through continuous innovation and licensing agreements
- Today, we hold 19 families of patents for our proprietary production processes to make CMF, HTC and their downstream products; these patents protect our IP in all major economic regions globally

Origin's technology uses conventional chemical processing, which is inherently well suited to scale-up

Moreover, Origin technology offers additional technical and economic advantages for process scale-up

Origin technology scale-up advantages

Proven approach for scaling up bio-processes

Conventional chemical bio-processes that have scaled up include bio-diesel, Kraft process, PLA, ethanol to ethylene, and renewable diesel

Conventional equipment

Standard equipment used in the chemical industry for centuries makes scale-up more straightforward than processes requiring new mechanical designs

Extensively tested at pilot scale

Origin's process has been extensively run and stress tested at pilot scale for over 10 years

Powerful demand pull

Carbon efficiency and the low cost & volatility of feedstock drive demand for Origin's products

Technology comparison

	Origin conventional chemo-catalytic chemical process	Fermentation Process	Thermochemical Process (e.g. gasification / pyrolysis)
carbon efficiency (product yield ¹)	high ✓ (removes oxygen via H ₂ O)	low (removes oxygen via CO ₂)	low (removes oxygen via CO ₂)
feedstock variation	robust ✓ (a vast number of compositions can be used)	moderate ✓ (causes stress and inhibition)	fragile (salt accumulation and process inhibition)
equipment	conventional ✓	conventional ✓	novel
temperature	moderate ✓	moderate ✓	high

1. Yield of carbon in product as a fraction of carbon input

Origin 1 and Origin 2 construction budget and timeline on track

Reaffirm previous outlook on expected capital budget and production timelines for Origin 1 and Origin 2

Origin 1 is on track for completion by the end of 2022

Origin 2 is on track for completion by mid-2025

- We continually review construction costs and timelines to assess the impact of macroeconomic movements such as inflation and supply chain disruptions
- Continuous real time feedback from equipment suppliers and our engineering partner Worley have confirmed our previous disclosed capital budgets for Origin 1 and Origin 2
- Capital budgets include substantial monetary and resource contingencies for unforeseen events, as is appropriate for projects of this size and phase
- Installation of the foundations for buildings and process is well underway
- Lifting and erection of previously fabricated key production equipment modules is now expected to be completed by the end of 2021 rather than Q2 2022, approximately four months ahead of schedule
- We have appointed Worley as our engineering partner
- Worley, together with Deloitte and Fisher International, is helping us with site selection; we expect to have that completed by the end of 2021, in-line with previous forecasts
- We are ramping up the hiring of the engineering and site project management teams as the planning and construction of Origin 2 is being done

Construction – process modules

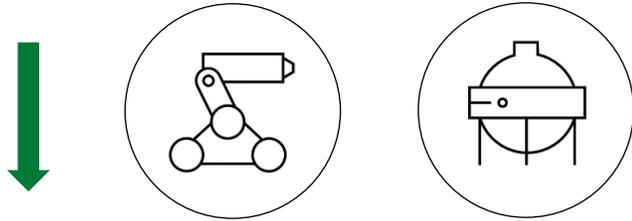
The 17 completed core process modules, fabricated by Koch Modular, are ready for installation at Origin 1 site in Sarnia, Ontario.

- The unique, Origin-specific technology components of Origin 1 are already fabricated
- Installation involves lifting these units from the horizontal position (per the images) to vertical on bolted concrete foundations
- The modules weigh about 60 to 75 tons each
- The bottom image shows key piping support, instrumentation, valves, and control junction boxes
- Origin has already completed installation of most foundations for building and process areas at the construction site

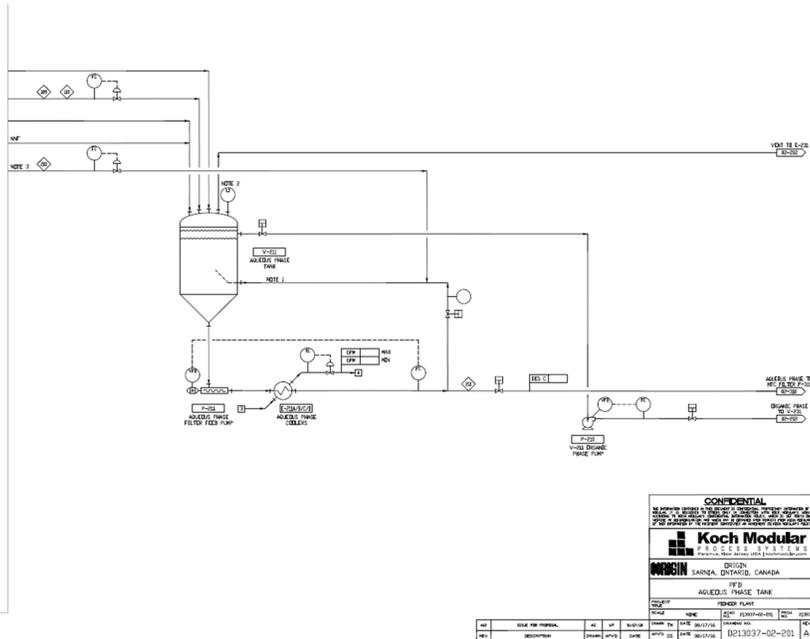


Construction - Origin 1 story (1 of 2)

>10 years bench/pilot scale chemistry & engineering



Origin 1 design



Origin 1 core technology module fabrication



Construction - Origin 1 story (2 of 2)



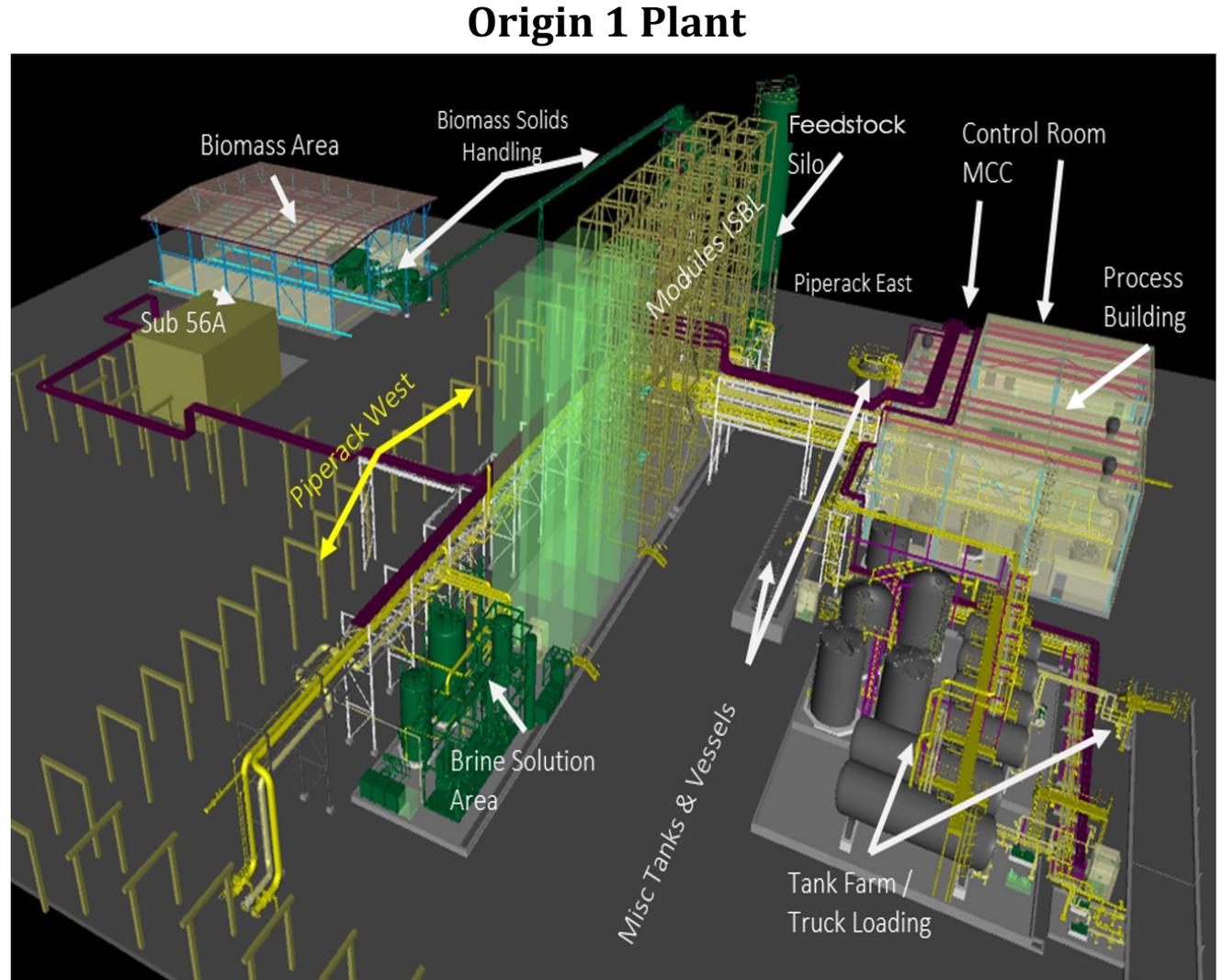
Foundations



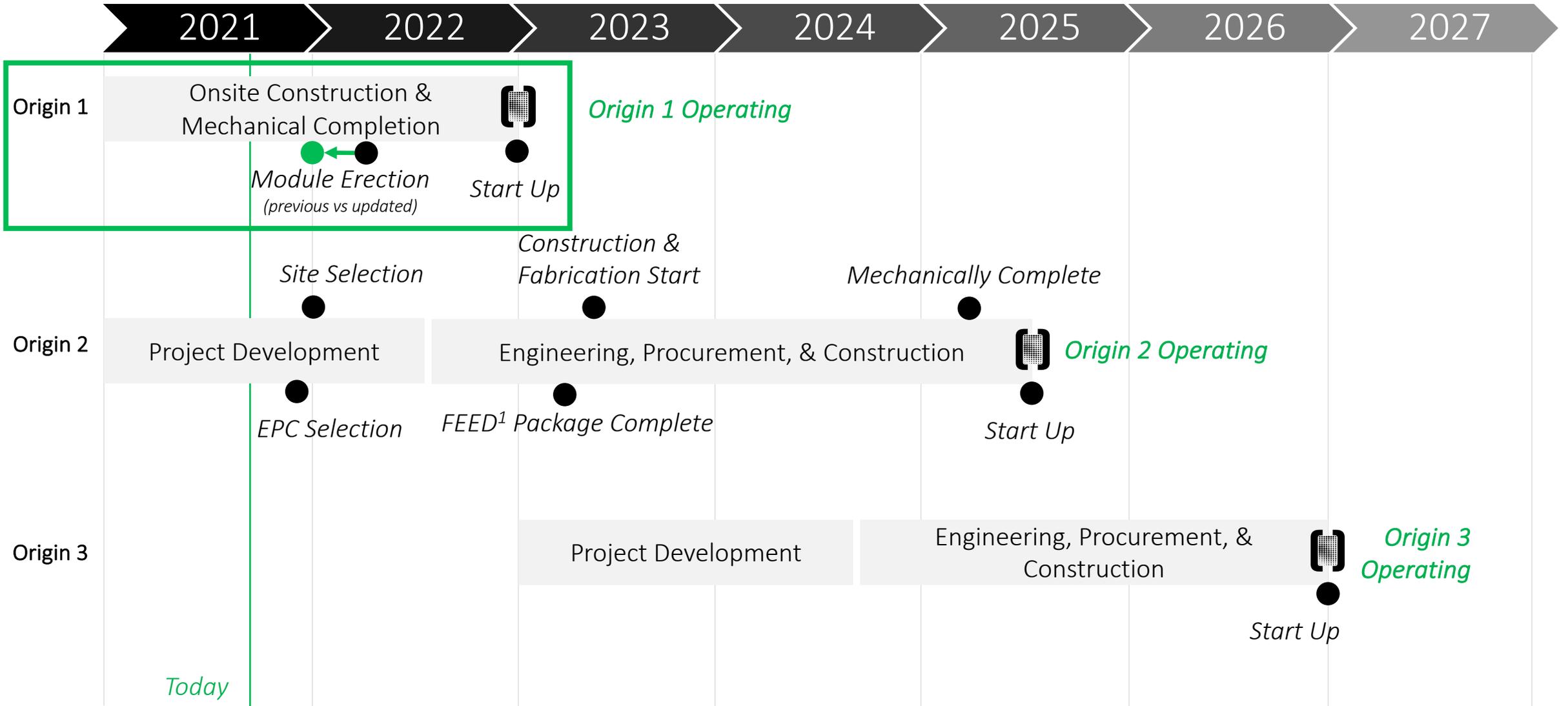
Tanks & other equipment



Core technology modules



Construction schedule – Origin 1, Origin 2, and Origin 3

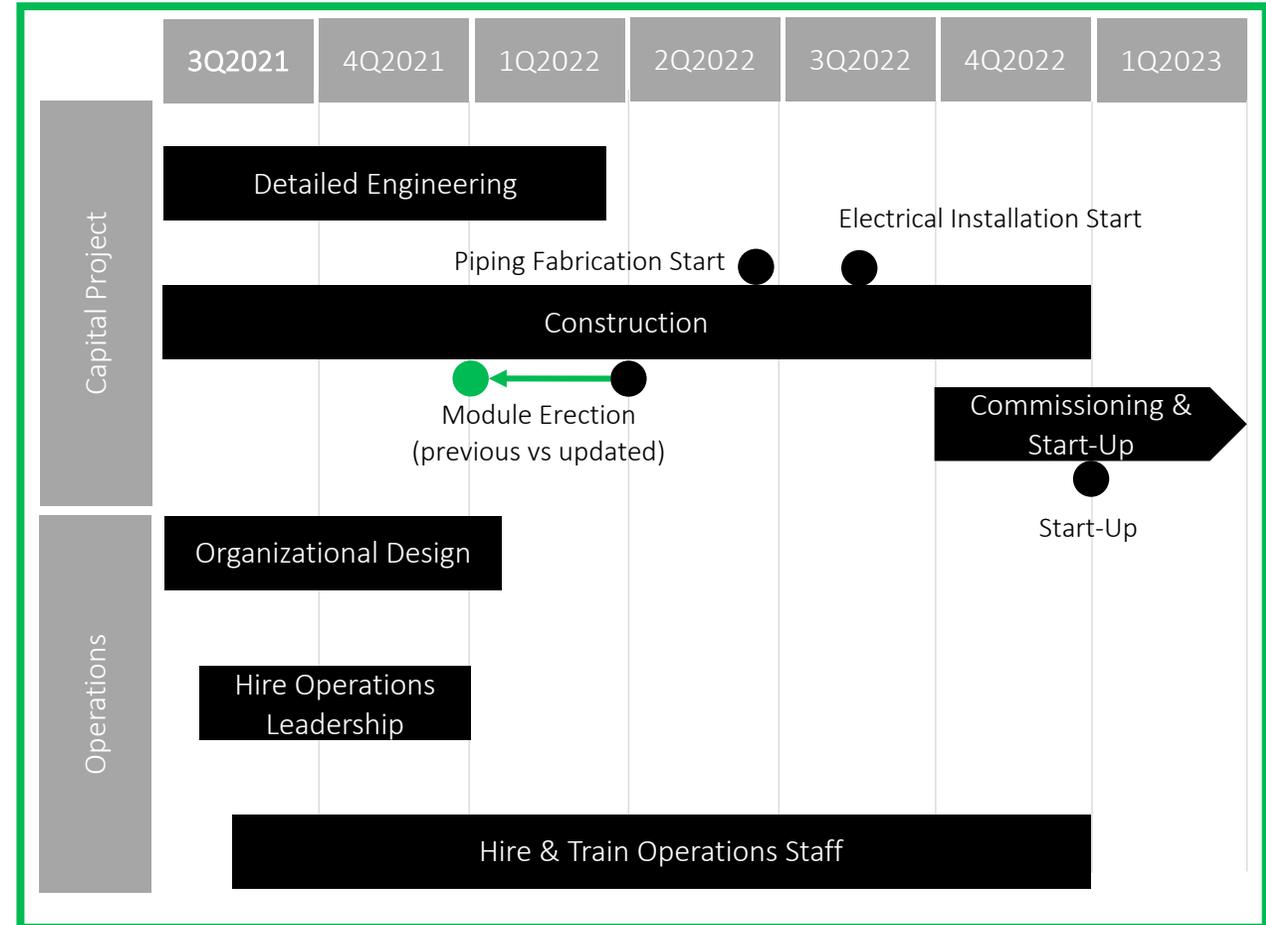


1. Front-end engineering design.

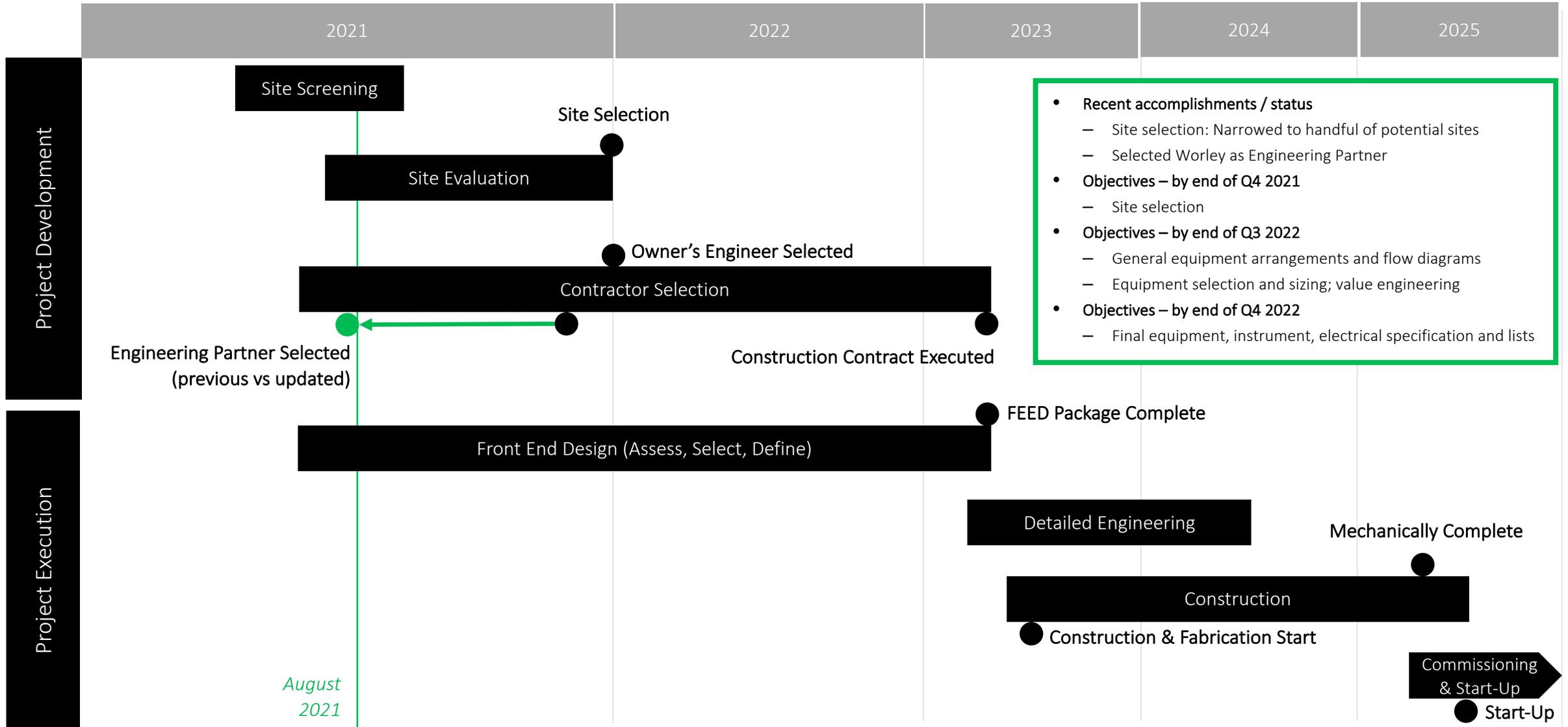
Construction schedule – Origin 1

- **Origin 1 – plant purpose**
 - Produce CMF and HTC at commercial volumes
 - Produce CMF and HTC and other intermediates in volumes that allow customers to qualify products and applications other than PET
- **Recent accomplishments / status**
 - Engaged Worley as our engineering partner
 - Engaged additional key engineering & construction mgmt. partners
- **Objectives – by end of Q3 2021**
 - Achieve activities required to enable module lift by end of Q4 2021
 - Hire Process Automation Lead, additional Project Manager/ Project Engineer
- **Objectives – by end of Q4 2021**
 - Hire Origin 1 operating leadership: Site & Plant Director, Operations Manager, Site EHS&S (Environmental Health, Safety, and Security) Manager
 - Complete structural elements of plant ISBL and complete foundations of auxiliary process buildings
 - Erect main plant modules
- **Objectives – by end of Q1 2022**
 - Receive additional major equipment (tanks, etc.)
 - Receive ENCON evaporator modules
- **Objectives – by end of Q2 2022**
 - Piping fabrication start
- **Objectives – by middle of Q3 2022**
 - Piping & electrical installation start

Origin 1 Timeline (Detail View)



Construction schedule – Origin 2



Construction – execution

Recent Additions to Technical Leadership Team –
Proven Expertise in Plant Construction & Technology Scale-Up



Bob Nissen
Origin 2 Project Director



David Ballow
Origin 2 Process
Technology Director



Phil McAllister
Origin 1 Project Director



Jim Wells
Technical Director



Madhu Anand, PhD
Technical Director



Ben Freireich, PhD
Technical Fellow



Capital Project Partners



Financials in-line with previous outlook

Financial operating metrics for Q2 2021 are in-line with our previous outlook

- With ramp up of employee hiring and operations in support of construction, product development and sales activities, Q2 2021 Adjusted EBITDA loss was \$3.0 million compared to a loss of \$1.6 million in the prior-year period¹
- Net income was \$62.5 million for the second quarter compared to a net loss of \$1.7 million in the prior-year period

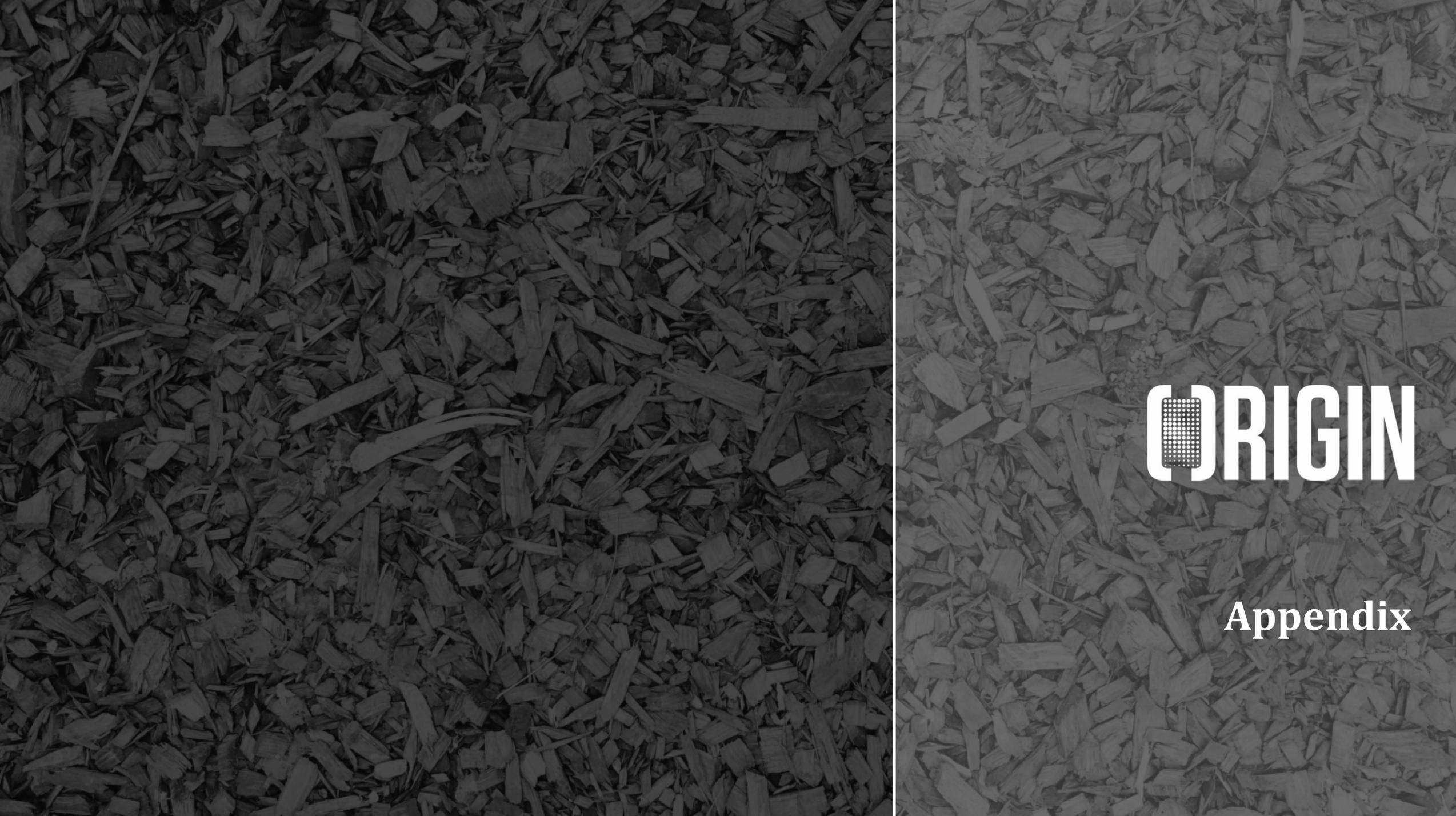
Reaffirm expectations of fully funding the capital budget of Origin 1 and Origin 2

- Capital budget for Origin 1 and Origin 2 still anticipated to be fully funded from cash in hand and traditional project financing sources
- Leading financial institutions specializing in similarly sized and stage capital projects have confirmed that our financing assumptions for Origin 2 are reasonable and executable
- As presented previously, anticipate having approximately \$100 million of excess cash, beyond the capital budget for Origin 1 and 2, for any unforeseen contingencies in addition to substantial monetary contingencies already included in our capital project budgets, which is also available to fund Origin 3

Reaffirm our previous fiscal year 2021 outlook

- Adjusted EBITDA loss of up to \$25 million¹
- Capital expenditures of up to \$111 million

1. For a reconciliation of a non-GAAP figure to the applicable GAAP figure please see the table captioned 'Reconciliation of GAAP and Non-GAAP Results' set forth on slide 20.

The background of the entire image is a dense, textured pattern of wood chips or mulch, rendered in a dark, monochromatic grey tone. A thin white vertical line runs down the center of the image, separating the left and right halves.

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Appendix

Long-term target operating model

	Origin Plant 1		Origin Plant 2		Origin Plant 3-7 Average	
Illustrative Run-Rate Economics						
Mn lb. biomass input	49		2,205		2,205	
Mn lb. products sold	146		2,412		1,313	
CapEx (\$Mn)	\$70 ¹		\$1,072		\$811	
ROIC (Adj. plant margin/CapEx)	NM		35.9%		51.1%	
	\$Mn	\$/lb. product	\$Mn	\$/lb. product	\$Mn	\$/lb. product
Revenue	\$122	\$0.84	\$708	\$0.29	\$637	\$0.49
Consumer materials			\$414		\$291	
Industrial materials	\$122		\$294		\$346	
Biomass feedstock	(\$7)	(\$0.05)	(\$56)	(\$0.02)	(\$56)	(\$0.04)
Other feedstock & variable costs	(\$7)	(\$0.05)	(\$93)	(\$0.04)	(\$108)	(\$0.08)
Tolling & downstream processing	(\$106)	(\$0.73)	(\$154)	(\$0.06)	(\$39)	(\$0.03)
Adj. Contribution²	\$2	\$0.01	\$405	\$0.17	\$435	\$0.33
Plant labor + other fixed costs	(\$6)	(\$0.04)	(\$20)	(\$0.01)	(\$20)	(\$0.02)
Adj. Plant Profit	(\$4)	(\$0.03)	\$385	\$0.16	\$415	\$0.32
Primary Products	PET/F, CMF, higher value application development samples		PET, HTC fuel		PET, PET/F, PEF ³ , CMF, FDCA ⁴ , carbon black, activated carbon, HTC fuel	

1. Denotes incremental capex to be spent in 2021-2022.

2. Reflected as adjusted gross profit in the base case projections included in the registration statement on Form S-4 as filed with the SEC by Artius Acquisition Inc. ("Artius") on March 9, 2021, as amended.

3. Polyethylene furanoate. 4. Furandicarboxylic acid.

Source: Origin Materials management estimates.

Share count

<u>Class</u>	<u>Outstanding Shares of Common Stock</u>
Total Shares Outstanding¹	136,748,470
Shares subject to forfeiture ¹	4,500,000
Total Shares Outstanding, including Shares subject to forfeiture¹	141,248,470
	<u>Shares Reserved for Future Issuance</u>
	<u>Pursuant to Potential Earnouts,</u>
	<u>Outstanding Warrants, and Options</u>
Public Warrants ²	24,150,000
Private Warrants ²	11,326,667
Legacy Origin Earnout Shares ³	25,000,000
Options ^{4, 5}	7,945,956
Total Shares⁵	209,671,093

1. 4.5 million shares held by a certain stockholder subject to forfeiture in three equal installments unless our Common Stock reaches certain trading price thresholds within certain specified time periods (10 consecutive trading day closing volume weighted average price targets of \$15, \$20, and \$25 within 3, 4 and 5 years after the closing of the business combination between Artius and legacy Origin (the "Business Combination"), respectively) 2. Warrant exercise price = \$11.50 per share. 3. 25,000,000 Earnout Shares are subject to issuance in three equal installments if our Common Stock reaches certain trading price thresholds within certain specified time periods (10 consecutive trading day closing volume weighted average price targets of \$15, \$20, and \$25 within 3, 4 and 5 years after the closing of the Business Combination, respectively). 4. Includes 6,464,425 options with a weighted average strike price of \$0.21/share and 1,481,531 performance-based options at \$0.14/share (423,294, 634,942, and 423,295 performance-based options vest if our Common Stock reaches volume weighted average price thresholds of \$15, \$25, and \$50 per share respectively for 10 consecutive trading days). 5. Excludes shares available for future issuance pursuant to our equity incentive plan and employee stock purchase plan.

Reconciliation of GAAP and Non-GAAP results

We believe that the presentation of Adjusted Earnings before Interest, Taxes, Depreciation, and Amortization (Adjusted EBITDA) is appropriate to provide additional information to investors about our operating profitability adjusted for certain non-cash items, non-routine items that we do not expect to continue at the same level in the future, as well as other items that are not core to our operations. Further, we believe Adjusted EBITDA provides a meaningful measure of operating profitability because we use it for evaluating our business performance, making budgeting decisions, and comparing our performance against that of other peer companies using similar measures.

We define Adjusted EBITDA as net income or loss adjusted for (i) stock-based compensation expense, (ii) depreciation and amortization, (iii) interest expense, net of capitalized interest, (iv) change in fair value of derivative liability, (v) change in fair value of warrants liability, (vi) change in fair value of earnout liability, and (vii) other income, net.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
Net Income (loss)	\$62,531	\$(1,693)	\$8,961	\$(3,663)
Stock based compensation	3,545	9	4,172	18
Depreciation and amortization	121	100	236	204
Interest expense, net of capitalized interest	2,560	50	2,839	113
Change in fair value of derivative liability	1,035	(12)	1,426	(15)
Change in fair value of warrants liability	(27,265)	105	20,844	105
Change in fair value of earnout liability	(45,497)	-	(45,497)	-
Other Income, net	(42)	(157)	(624)	(168)
Adjusted EBITDA	<u><u>\$(3,012)</u></u>	<u><u>\$(1,598)</u></u>	<u><u>\$(7,643)</u></u>	<u><u>\$(3,406)</u></u>



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