ORIGIN

Fourth Quarter 2022 Earnings Call

The world's leading carbon negative materials company

February 23, 2023

Forward looking statements and disclaimers

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TRADEMARKS

Q4 2022 highlights (1 of 2)

Origin's mission is to help drive the world's transition to sustainable materials by providing 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 PepsiCo, Nestlé Waters, Danone, Ford Motor Company, Mitsubishi Gas Chemical, PrimaLoft, Solvay, Kolon Industries, AECI, Stepan, Mitsui & Co., Packaging Matters, Minafin Group, LVMH Beauty, Mitsubishi Chemical Group, Kuraray, Revlon, ATC Plastics, and Intertex

Customer demand remains strong and broad based

- Offtake and capacity reservation agreements now exceed $9.3 billion[1]. This represents a more than ninefold increase since the Company announced its intent to go public in February 2021
- Patented drop-in core technology, attractive unit economics and carbon impact continues to gain the support of a growing list of major global brands and investors spanning an increasingly diverse range of consumer and industrial end-markets
- As previously disclosed, Origin 2 para-xylene and PET capacity are substantially committed. Starting in Q4, the sales team 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

Origin 1 mechanically complete, completion of commissioning and start-up expected in Q2 2023

- Origin 1's critical mechanical systems have been successfully installed and commissioning has begun
- Completion of commissioning and start-up expected in Q2 2023
- Work onsite will continue, including electrical work, adding new equipment, and further refining technology

1. Figures assume maximum offtake amounts and exercise of full capacity reservations.

Q4 2022 highlights (2 of 2)

Origin 2 receives financing approval, with update to be provided mid-2023

- Origin 2 has received final approval from Louisiana State Bond Commission and preliminary approval from Louisiana Public Finance Authority for the issuance of up to $1.5 billion of tax-exempt bonds, inclusive of previously announced expected $400 million Private Activity Bond ("PAB") allocation from the State of Louisiana
- This approval could enable the debt financing of Origin 2 using entirely tax-exempt bonds
- The Company has also made progress on developing new products and applications which may be incorporated into the design of the plant, such as FDCA, PEF, and biofuels
- Front-end design, construction planning, and financing are progressing with an update to be provided mid-2023

Strong application development momentum for higher-margin products

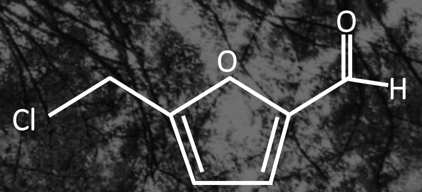
- Using its versatile platform technology, Origin has been developing commercialization pathways for higher-value applications for its intermediates CMF and HTC. In addition to para-xylene and bio-PET, Origin is exploring or qualifying FDCA, epoxies and resins, surfactants, sustainable carbon black, bio-asphalt, fuel pellets, as well as biofuel and biosolvents from an "oils and extractives" stream co-produced with CMF and HTC and which has not been included in previous plans
- As part of this development work, Origin has entered a strategic partnership with Avantium to accelerate the mass production of FDCA and PEF for advanced chemicals and plastics. The partnership aims to produce FDCA from Origin's carbon-negative technology platform for producing CMF and Avantium's YXY® Technology, which can be used to convert derivatives of Origin's CMF into FDCA, the chemical building block for the polymer PEF

2023 financial guidance

- 2023 financial guidance of revenue of $40 million to $60 million and Adjusted EBITDA loss of $50 million to $60 million. Based on a gradual production ramp up of Origin 1 and the establishment of the new supply chain, the Company anticipates to start booking revenues in Q3 2023

Origin Materials – At a Glance

The world's leading carbon negative materials company



Disruptive Materials Technology Company

Origin produces low and negative carbon materials

Decarbonizing Platform Technology

CO_2

Enables customers' net-zero commitments

Enormous TAM

~$1+ Trillion

$390Bn near-term focus in polyesters; $750Bn across broad range of materials

Cost advantaged

Timber feedstocks are competitive with oil and ~10x cheaper than bio alternatives

Global Fortune 500 Customers & Investors[1]

PEPSICO

DANONE ONE PLANET. ONE HEALTH

Nestlé

Strong Customer Demand[2]

$9.3Bn[3] and growing

from a diverse mix of industries

Protected & Validated Technology

23 Patent Families[3]

Core technology protected in key countries

Cash on hand[4]

$324 Mn

Origin expected to be fully financed until EBITDA positive with anticipated financing, grants, and potentially strategic partnerships

1. Denotes ownership by PepsiCo, Danone and Nestle prior to business combination with Artius Acquisition, Inc.
2. Figures assume maximum offtake amounts and exercise of full capacity reservations.
3. As of February 23, 2023.
4. As of December 31, 2022. Represents cash, cash equivalents, restricted cash, and marketable securities.

Source: Origin Materials.

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Inflation Reduction Act ("IRA") offers potential for incremental government incentives for the construction of Origin's plants

Program is expected to start receiving initial applications in March 2023, with decisions at the end of the year

IRA – Section 48C Advanced Manufacturing Tax Credit

- The IRA is expected to significantly expand the Section 48C Tax Credit available for investments in manufacturing facilities for clean energy technologies
- Law provides $10 billion for allocations and expands the scope of eligible projects to "projects that re-equip, expand, or establish an industrial or manufacturing facility"[1]
- Origin is exploring several paths of eligibility in order to qualify for a discretionary tax credit for a significant portion of the plant's capital, which could support Origin 2 and future plant financing

IRA – Advanced Industrial Facilities Deployment Program

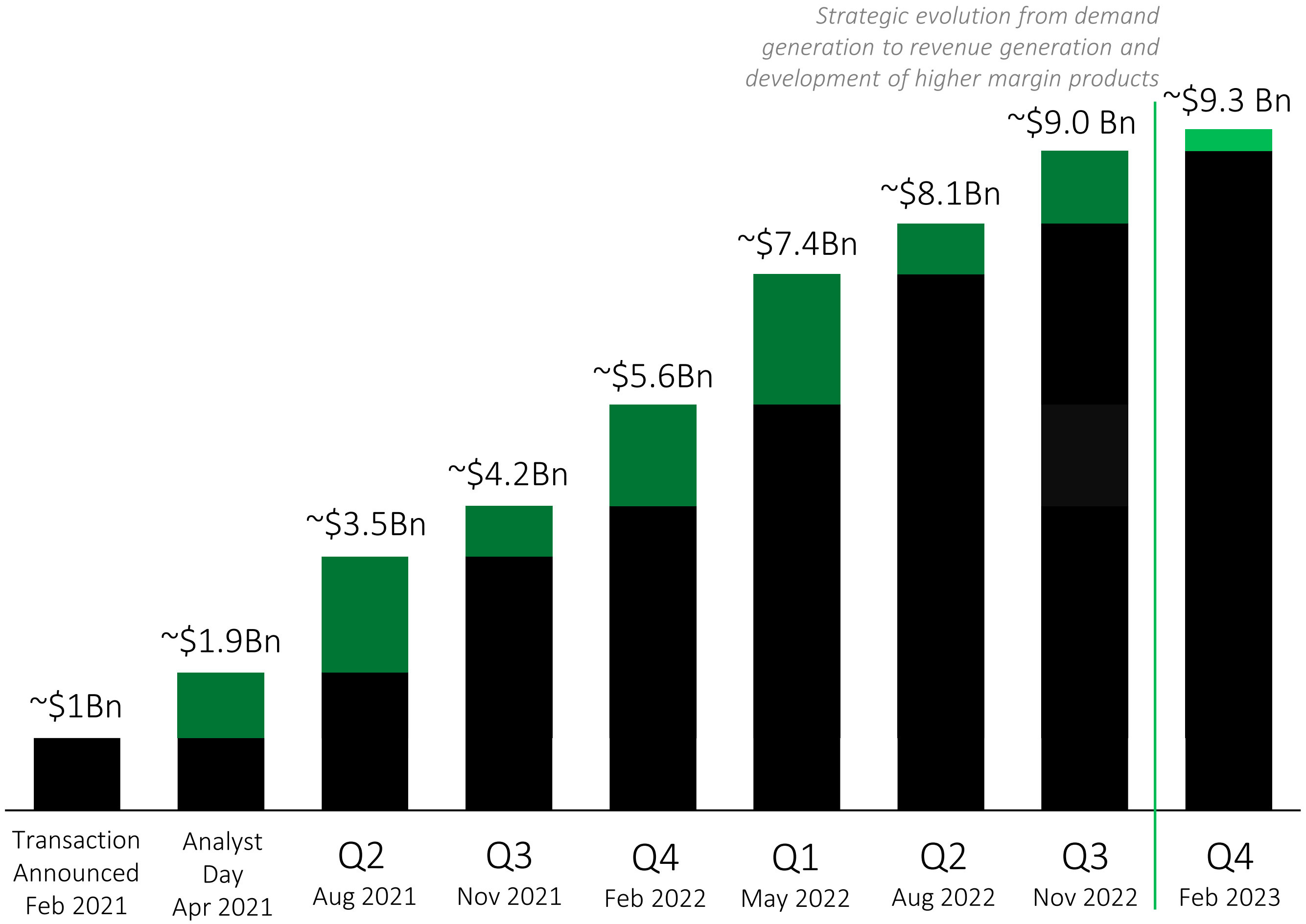
- Department of Energy program expected to provide competitive funding to advanced industrial facilities aimed at reducing greenhouse gas emissions from historically energy-intensive industries, including iron, steel, concrete, glass, pulp, paper, ceramics, and chemical production
- $5.8 billion of funding expected to be allocated for grants, rebates, direct loans, or cooperative agreements[1]
- Origin optimistic that U.S. based capacity will qualify for competitive financing

1. H.R.5376 - Inflation Reduction Act of 2022.

Origin customer demand has increased more than ninefold to $9.3Bn since February 2021 announcement to go public

Total demand is $9.3Bn in either offtake agreements or capacity reservations[1]

Customer Demand, $Bn cumulative[2]



Select Origin Customers & Partners

Ford
Nestlé
PEPSICO
MITSUBISHI GAS CHEMICAL
AECI
DANONE ONE PLANET. ONE HEALTH
SOLVAY
Stepan
PRIMALOFT
packaging MATTERS
KOLON INDUSTRIES
MITSUI & CO.
LVMH
MINAFIN GROUP
MITSUBISHI CHEMICAL GROUP
REVLON
kuraray
INTERTEX WORLD RESOURCES, Inc.
ATC PLASTICS

- Major Asian soft drink company
- Major global retail company
- Major global toy company
- Major global chemical company
- Major U.S. supermarket chain
- Major Japanese chemical company
- Major Asian chemical company

1. Figures assume maximum offtake amounts and exercise of full capacity reservations.
2. In the chart, green color denotes the incremental increase in customer demand for a given quarter.
Source: Origin Materials.

Origin 1 mechanically complete

Commissioning underway, with completion of commissioning and start-up expected in Q2 2023

- Commercial-scale plant expected to enable customers to qualify products and applications beyond PET and HTC fuel pellets; higher value products ultimately be produced and sold at world scale from Origin 2, Origin 3, and beyond
- Origin 1 nameplate capacity approximately 50 million pounds of biomass input annually
- In addition to para-xylene and bio-PET, Origin is exploring or qualifying FDCA, epoxies and resins, surfactants, sustainable carbon black, bio-asphalt, fuel pellets, as well as biofuel and bio-solvents from an “oils and extractives” stream co-produced with CMF and HTC and which has not been included in previous plans
- Origin 1 will be operated to optimally fulfill customers demand around qualification and sampling

Construction schedule – Origin 1

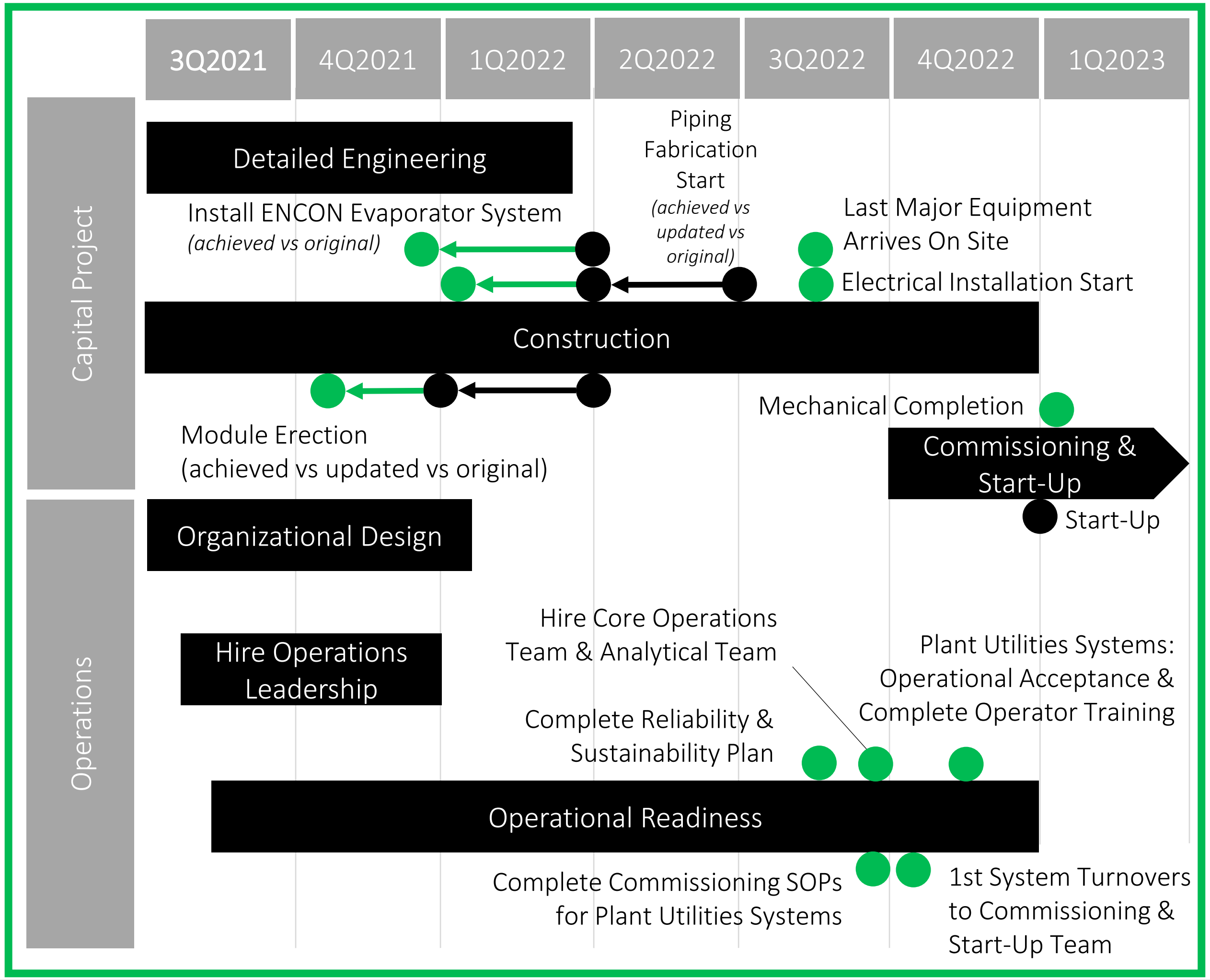
Origin 1 – plant purpose

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

- Objectives – by end of Q2 2022
  - 1st round of operations hiring DONE
  - Piping modules delivered and installed DONE
  - Storage tanks for solvent received onsite DONE
  - HTC building construction start DONE
  - Filter press received and installed DONE
- Objectives – Q3 2022
  - Electrical installation start DONE
  - Last major equipment arrives on site DONE
  - Complete reliability and sustainability plan DONE
  - Hire core operations team & core analytical team DONE
  - Complete commissioning SOPs for plant utilities systems DONE
- Objectives – Q4 2022
  - 1st system turnovers to commissioning and start-up team DONE
  - Complete operator training for plant utilities systems DONE
  - Complete operational acceptance of plant utilities systems UNDERWAY
  - Complete commissioning SOPs for plant process systems DONE
  - Complete operator training for plant process systems UNDERWAY
  - Complete operational acceptance for plant process systems AT COMMISSIONING
  - Mechanical completion DONE

Origin 1 Timeline (Detail View)



Origin 1 platform development

Origin's first plant will play a key application development role including exploring additional high-value products

Strategic asset	Intermediate streams	Products being explored or qualified (JDAs, sample production)
	"CMF" 5-Chloro-methyl-furfural	Para-xylene and Bio-PET; FDCA; Epoxies and Resins; Surfactants
	"HTC" Hydrothermal carbon	Sustainable Carbon Black; Bio-asphalt; Fuel Pellets
	"Oils & Extractives"[1]	Biofuel; Bio-Solvents

1. See page 13 for detail.

Origin 2 front-end design, construction planning, and financing progressing, with update to be provided mid-2023

Origin 2 debt financing progressing

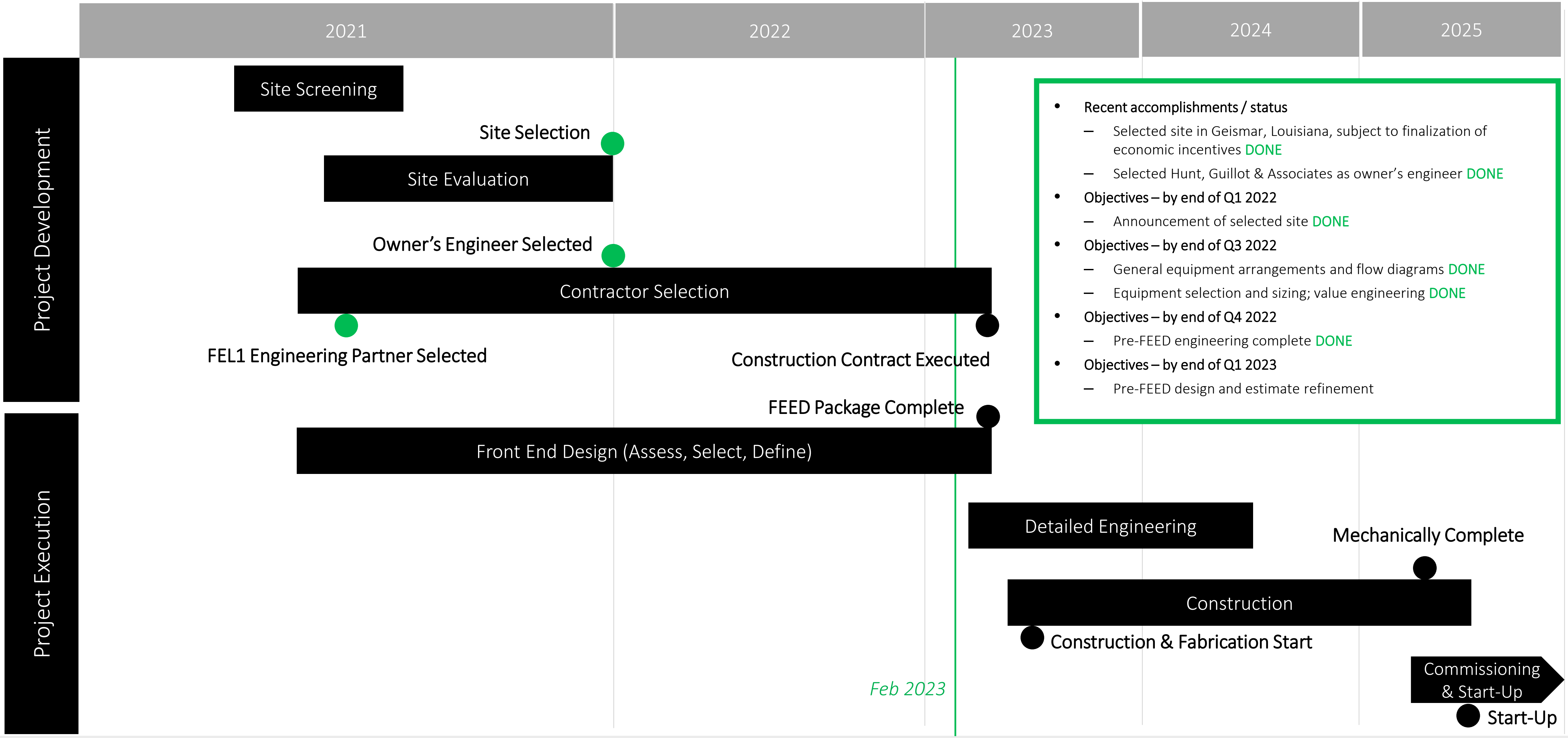
- Origin 2 has received final approval from Louisiana State Bond Commission and preliminary approval from Louisiana Public Finance Authority for the issuance of up to $1.5 billion of tax-exempt bonds, inclusive of previously announced expected $400 million Private Activity Bond ("PAB") allocation from the State of Louisiana
- This approval could enable the debt financing of Origin 2 using entirely tax-exempt bonds
- Bank of America appointed as underwriter and marketer of Origin 2 tax-exempt financing
- Simultaneously pursuing other forms of financing, grants, and federal tax credits including programs with the USDA, DOE, and others which have come out of the IIJA and IRA to optimize capital structure and financing costs

Front-end design progressing, with new products potentially incorporated into plant design

- The overall site plot plan and logistics plan have been developed
- The Company has made progress on developing new products and applications which may be incorporated into the design of the plant, such as FDCA, PEF, and biofuels
- Company expects to provide an update on new product offerings and construction plans for the Origin 2 plant in mid-2023

Construction schedule – Origin 2

Company expects to provide an update on new product offerings and construction plans in mid-2023

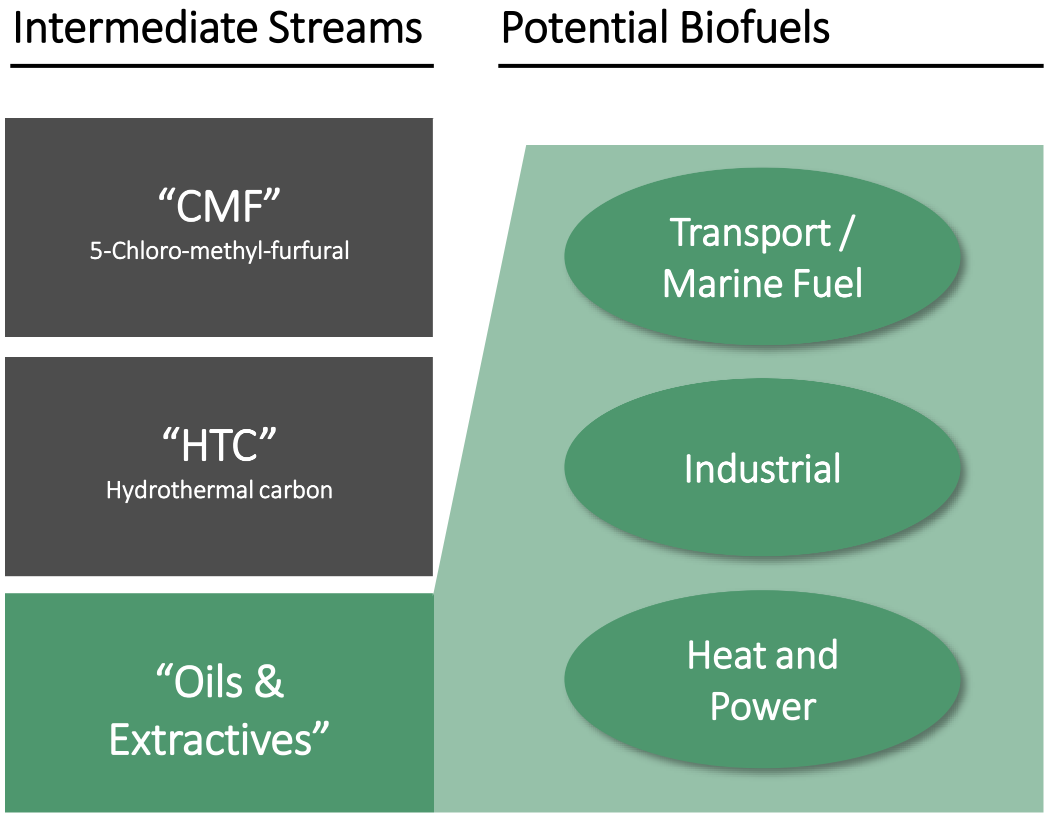


- Recent accomplishments / status
  - Selected site in Geismar, Louisiana, subject to finalization of economic incentives DONE
  - Selected Hunt, Guillot & Associates as owner's engineer DONE
- Objectives – by end of Q1 2022
  - Announcement of selected site DONE
- Objectives – by end of Q3 2022
  - General equipment arrangements and flow diagrams DONE
  - Equipment selection and sizing; value engineering DONE
- Objectives – by end of Q4 2022
  - Pre-FEED engineering complete DONE
- Objectives – by end of Q1 2023
  - Pre-FEED design and estimate refinement

Origin is exploring biofuel production from an "oils and extractives" stream co-produced with CMF and HTC and not included in previous plans

Cellulose-derived biofuel for aviation, renewable diesel, and marine fuel

- Biofuels market is $110 billion to $130 billion, estimated to grow to $200 billion by 2030[1]
- Today biofuels are made mostly from food or food-derived sources (soy, used cooking oil, tallow, etc.)
- Cellulosic biofuels or bio-intermediates made from wood waste are highly sought after and represent the future of biofuels. Unlike food-derived biofuels, cellulose-derived biofuels do not compete with land for growing food and "let food be food"
- Origin is uniquely positioned to deliver these renewable fuels using a third intermediate stream, "oils and extractives," which is co-produced alongside CMF and HTC and which has not been included in previous plans
- Potential applications include transport/marine fuel, industrial, and heat and power
- Preliminary discussions with multiple potential strategic partners

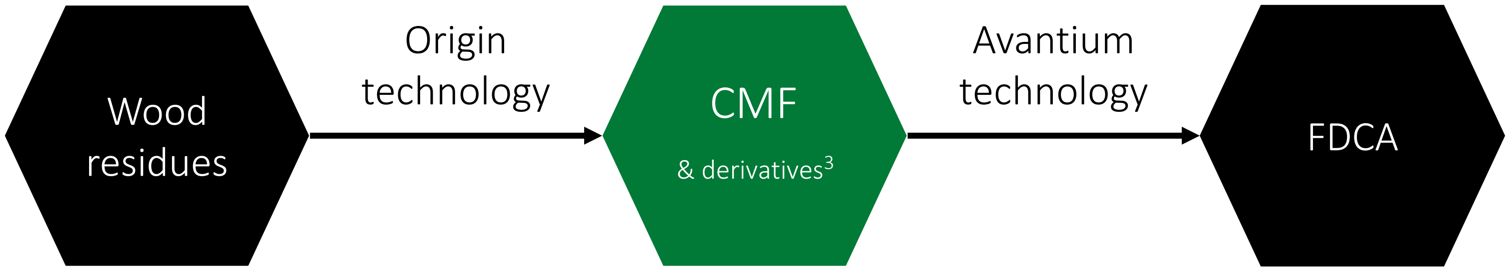


1. Source: Statista

Origin and Avantium to accelerate mass production of FDCA and PEF for advanced chemicals and plastics

Complementary technologies represent potential breakthrough in the commercialization of next-generation materials

- Origin's existing patented carbon-negative technology platform would convert wood residues into the building block chemical CMF and its derivatives. Avantium's process technology can be used to convert derivatives of Origin's CMF into FDCA, the chemical building block for the polymer PEF
- The produced PEF is expected to be a performance-advantaged alternative to PET, 100% plant-based, fully recyclable[1], have attractive unit economics, and to offer a significantly reduced carbon footprint, improved degradability[2], and superior strength, thermal properties, and barrier properties
- PEF could replace glass and aluminum, offering superior break protection and inexpensive light-weighting for shipping, making it well-suited for oxygen-sensitive products like carbonated soft drinks, protein shakes, and teas
- FDCA applications include a wide range of polyesters, polyamides, polyurethanes, coating resins, and plasticizers
- To accelerate commercialization, partnership includes a licensing agreement providing Origin with access to Avantium's process technology for producing FDCA and a conditional offtake agreement under which Avantium will supply Origin with FDCA and PEF
- Materials are expected to be sold to future customers while Origin incorporates Avantium's process technology into the supply chain. This allows Origin to start market development for PEF during its plant construction phase

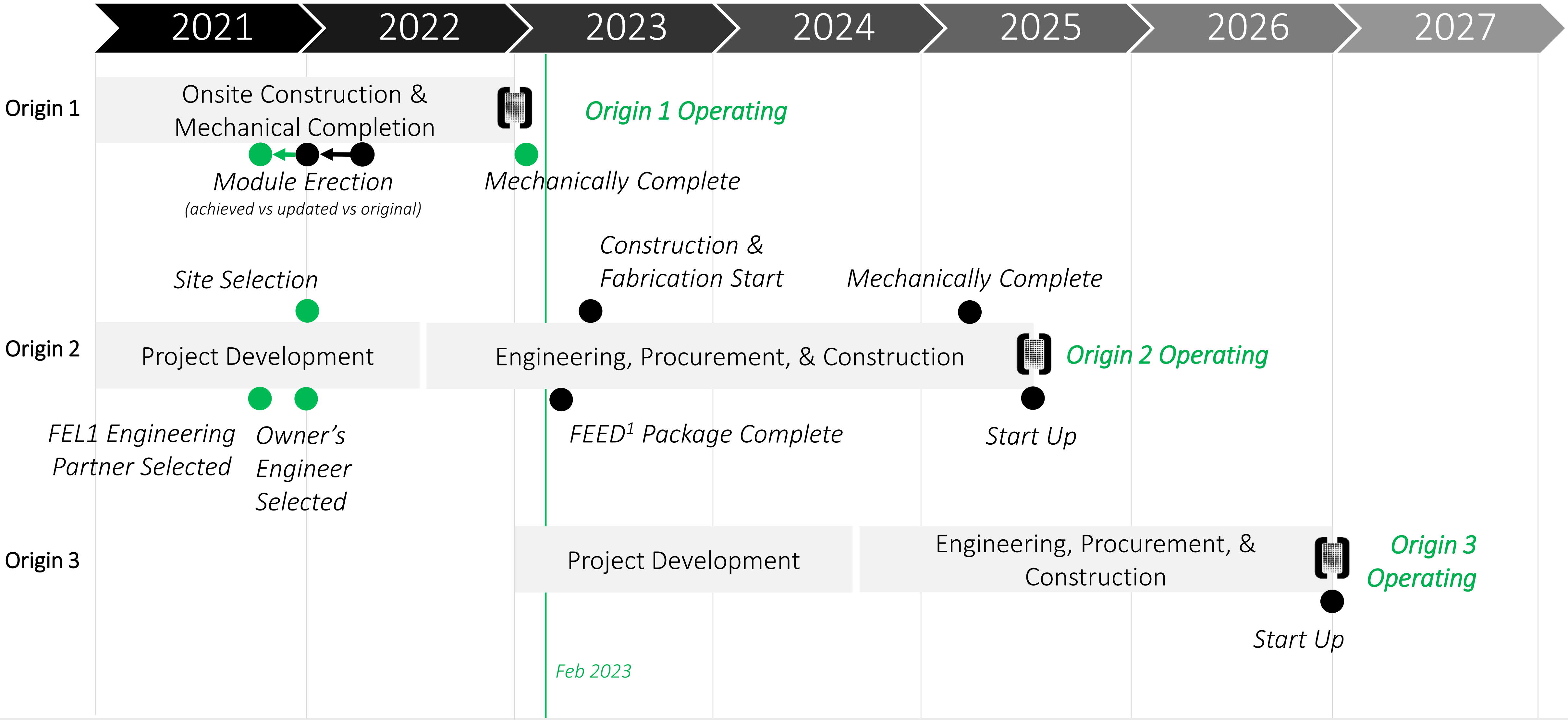


Complementary technologies aim to accelerate the mass production of FDCA and PEF

1. PEF can be recycled by the same mechanical methods used for PET. Currently there are no independent PEF recycling stream or U.S. guidelines for blending PEF and PET streams.
2. PEF degradation time in industrial composting conditions (58 °C) range from 7 to 13 months to 90% degradation, depending on conditions, according to "First Results Accelerated Tests Biodegradation of PEF," Organic Waste Systems (OWS), Gent, Belgium.
3. Derivatives such as MF, or methyl furfural, and others.

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

Company expects to provide an update on new product offerings and construction plans for the Origin 2 plant in mid-2023



1. Front-end engineering design.

Q4 2022 financials in-line with previous outlook

Financial operating metrics for Q4 2022 are in-line with our previous outlook	• Net income was $16.0 million for the fourth quarter compared to net income of $5.2 million in the prior-year period. Full year 2022 net income was $78.6 million compared to $42.1 million in the prior-year period. • With ramp up of employee hiring and operations in support of construction, product development and sales activities, Q4 2022 Adjusted EBITDA loss was $9.2 million compared to a loss of $6.6 million in the prior-year period. Full year 2022 Adjusted EBITDA loss was $31.0 million compared to $20.0 million in the prior-year period, consistent with prior guidance.[1]
Origin 2 receives financing approval	• Origin 2 has received final approval from Louisiana State Bond Commission and preliminary approval from Louisiana Public Finance Authority for the issuance of up to $1.5 billion of tax-exempt bonds, inclusive of previously announced expected $400 million Private Activity Bond ("PAB") allocation from the State of Louisiana, which could enable the debt financing 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 U.S.D.A and Department of Energy • Origin is exploring several paths of eligibility for various Inflation Reduction Act programs and grants as the guidelines are finalized by the relevant agencies • The Company continues 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 governmental affairs team, the Company anticipates potentially strategic partnerships and federal incentives programs to play a meaningful role in the financing of Origin 2.
2023 financial guidance	• 2023 financial guidance of revenue of $40 to 60 million and Adjusted EBITDA loss of $50 million to $60 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 19.

Appendix

Share count as of 12/31/2022

Class	Outstanding Shares of Common Stock
Total Shares Outstanding[1]	**138,534,225**
Shares subject to forfeiture[1]	4,500,000
Total Shares Outstanding, including Shares subject to forfeiture[1]	**143,034,225**
	Shares Reserved for Future Issuance Pursuant to Potential Earnouts, Outstanding Warrants, and Options
Public Warrants[2]	24,149,960
Private Warrants[2]	11,326,667
Legacy Origin Earnout Shares[3]	25,000,000
Options and RSUs[4, 5]	18,455,593
Total Shares [5]	**221,966,445**

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 4,989,537 options with a weighted average strike price of $0.17/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), 4,153,025 Restricted Stock Units, and 2,610,500 Performance Stock Units under which the maximum award can be up to 7,831,500 shares. 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 income, (iv) interest expense, net of capitalized interest, (v) change in fair value of derivative liabilities, (vi) change in fair value of warrants liability, (vii) change in fair value of earnout liability, (viii) professional fees related to completed mergers, and (ix) other income, net.

	Three months ended December 31,		Year ended December 31,	
(in thousands)	2022	2021	2022	2021
Net income	$ 15,993	$ 5,237	$ 78,569	$ 42,090
Stock based compensation	3,516	959	7,235	5,767
Depreciation and amortization	223	181	711	544
Interest income	(2,748)	(1,413)	(8,825)	(1,413)
Interest expense, net of capitalized interest	—	(1)	—	2,838
Change in fair value of derivative	2,168	(100)	443	1,326
Change in fair value of warrants liability	(6,378)	(2,838)	(21,988)	4,525
Change in fair value of earnout liability	(21,876)	(8,480)	(85,437)	(75,488)
Professional fees related to completed mergers	—	—	—	640
Other income, net	(132)	(160)	(1,709)	(811)
Adjusted EBITDA	$ (9,234)	$ (6,615)	$ (31,001)	$ (19,982)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