SAFE HARBOR STATEMENT

These slides and any accompanying oral presentation contain forward-looking statements. All statements, other than statements of historical fact, included in these slides and any accompanying oral presentation are forward-looking statements reflecting management’s current beliefs and expectations. In some cases, you can identify forward-looking statements by terminology such as “will,” “anticipate,” “expect,” “believe,” “intend” and “should” or the negative of these terms or other comparable terminology. Forward-looking statements in these slides and any accompanying oral presentation include, but are not limited to, statements about estimates and forecasts of other financial and performance metrics and projections of market opportunity, expectations and timing related to the rollout of our business and timing of deployments, customer growth and other business milestones. These statements are based on various assumptions, whether or not identified in this presentation, and on the current expectations of our management and are not predictions of actual performance. These statements relate to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. The potential risks and uncertainties that could cause actual results to differ from the results predicted include, among others, those risks and uncertainties included under the captions “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in our Form 10-Q filed with the Securities and Exchange Commission and subsequent annual reports, quarterly reports and other filings made with the Securities and Exchange Commission from time to time. Any forward-looking statements contained herein are based on assumptions that we believe to be reasonable as of the date hereof. Except as required by law, we assume no obligation to update these forward-looking statements, even if new information becomes available in the future.

Forward-looking statements may include, for example, statements about:

• our anticipated growth rate and market opportunities;
• our ability to maintain the listing of our securities on the Nasdaq Stock Market;
• the potential liquidity and trading of our securities;
• our ability to raise financing in the future;
• our assessment of the competitive landscape;
• our ability to comply with laws and regulations applicable to our business;
• our ability to enter into, successfully maintain and manage relationships with industry partners;
• our receipt of substantial additional financing to fund our operations and complete the development and commercialization of our process technologies;
• the availability of governmental programs designed to incentivize the production and consumption of low-carbon fuels and carbon capture and utilization;
• our ability to adequately protect our intellectual property rights;
• our ability to attract, retain and motivate qualified personnel and to manage our growth effectively;
• our future financial performance and capital requirements;
• our ability to implement and maintain effective internal controls; and
• the impact of the COVID-19 pandemic on our business.

This presentation includes data obtained from third-party studies and internal company surveys prepared for other purposes. The company has not independently verified the data obtained from these sources. Forward-looking information obtained from these sources is subject to the same qualification and the additional uncertainties regarding the other forward-looking statements in this presentation.

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2023 RECAP
2023 FINANCIAL RECAP

- 2023 revenue increased **68% YoY** to $62.6 million
- Strong quarterly revenue growth through 9M 2023, but weaker than expected 4Q 2023 caused miss vs. guidance
- Anticipated CarbonSmart™ revenue did not materialize in 4Q 2023 due to availability of certified offtake supply to meet demand
- **2023 Gross Margin improvement to 28%** from 24% in 2022 due to favorable mix of high-margin services revenue

- 2023 Adjusted EBITDA of $(80.1) million was below guidance
- Despite miss to guidance, Adjusted EBITDA showed quarter-over-quarter improvement in 2023 mainly driven by focus on improving gross profit and operating expense control
THREE CORRECTIVE ACTIONS TAKEN IN RESPONSE TO 2023 PERFORMANCE

- HEADCOUNT REDUCTION
- MANAGEMENT TEAM REORGANIZATION
- 2023 LEADERSHIP BONUS REDUCTION
COST SAVINGS PLAN ENACTED
DISCIPLINED FOCUS ON COST STRUCTURE

• Enacted plan **reducing workforce by approximately 5%**

• Workforce reduction expected to generate approximately **$5.3 million of annualized operating expenses savings and $4.2 million of expected annualized cash savings**

• Plan to end 2024 with global **headcount below 400 people**

• Have developed strategy ready for implementation that **would offset an additional approximate $10 million in annual cash burn**

• As a result of 2023 financial performance objectives not being met, we reduced 2023 target cash bonus payments for executive and management teams by 80%, resulting in **savings of approximately $3 million**
EXECUTIVE TEAM REORGANIZATION
SHARPEN AND ACCELERATE FOR GROWTH

Aura Cuellar | President
- All Revenue Business Lines
- Strategic Projects
- Engineering

Dr. Robert Conrado | Chief Technology Officer
- Technology Development up to Front End Engineering Design
- Process Infrastructure Technology
- Global IT & Scientific Computing

Dr. Zara Summers | Chief Science Officer
- Research and Design
- Synthetic and Systems Biology, Fermentation
- Global Technology Deployment
- Product Manufacturing
2023 MAJOR MILESTONES

• 18+ years in operation

• 3 commercial plant start-ups:

  ![IndianOil Logo]  ![ArcelorMittal Logo]

• Total of 6 **commercial plants** operating that have a total installed nameplate capacity of **310,000 tonnes** of ethanol annually

• LanzaJet Freedom Pines Fuels facility **mechanically complete** with start-up expected in 2024

**SELECT RECOGNITION**

TIME100 MOST INFLUENTIAL COMPANIES List
TIME100 CLIMATE List
DELOITTE TECHNOLOGY FAST 500 AWARD
ADIPEC DECARBONISATION AT SCALE AWARD
TERRA CARTA SEAL AWARD
FAST COMPANY’S WORLD’S MOST INNOVATIVE COMPANIES LIST
LANZAJET FREEDOM PINES FUELS
INAUGURATION CEREMONY

JANUARY 24, 2024
2024 STRATEGIC PRIORITIES
2024 STRATEGIC PRIORITIES

1. SAFETY FIRST
   ▪ Zero recordable injuries
   ▪ Zero lost time injuries

2. COMMERCIAL GROWTH
   ▪ Ramp up to full production at IndianOil and ArcelorMittal facilities
   ▪ Continued pipeline expansion and progression of projects through the development pipeline

3. PATH TO PROFITABILITY
   ▪ Continued gross profit expansion, focused on strong-margin revenue opportunities
   ▪ Operating cost discipline
STRONG PIPELINE THAT POSITIONS THE COMPANY FOR CONTINUED GROWTH AND SCALE

ACTIVE CUSTOMER BIOREFINING PROJECT PIPELINE

- 60+ Active Engagements with Positive Technoeconomic Results
- 25+ Early-Stage Engineering
- 13 Advanced Engineering
- 1 Construction
- 8 Operating

Several projects into this phase
5 net additions into this stage, advancing from TEA or directly entering phase
2 projects advanced from early-stage engineering
Freedom Pines Fuels. Expected to begin operations and ramp up production in 2024

6 commercial projects: SGLT 1–4, IndianOil, and ArcelorMittal Gent
2 Demo-scale projects: Sekisui 1/10th plant and Suncor demo unit

KEY PIPELINE CHARACTERISTICS

- ~79,000 tons Avg. Plant Capacity

PIPELINE BY REGION

- Asia & Pacific: 17%
- Europe: 25%
- Middle East: 27%
- Americas: 24%
- India: 24%

PIPELINE BY FEEDSTOCK

- Gasified MSW: 15%
- Other Gasified Solids: 34%
- Biogas: 24%
- Industrial Off Gas: 42%
- CO2 + H2: 5%

1 Biorefining project pipeline as of February 15, 2024
OVERVIEW OF 4Q 2023 AND FULL YEAR 2023 FINANCIAL RESULTS
OVERVIEW OF 4Q AND FY 2023 FINANCIAL RESULTS

**Summary Financial Results¹**

<table>
<thead>
<tr>
<th>Three Months Ended December 31³</th>
<th>Change</th>
<th>Full Year</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2023</td>
<td>2022</td>
<td>2023 vs. 2022</td>
</tr>
<tr>
<td>Total Revenue</td>
<td>$20.5</td>
<td>$11.6</td>
<td>$8.9</td>
</tr>
<tr>
<td>Cost of Revenues</td>
<td>12.0</td>
<td>9.1</td>
<td>2.9</td>
</tr>
<tr>
<td>Operating Expenses</td>
<td>27.1</td>
<td>21.9</td>
<td>5.2</td>
</tr>
<tr>
<td>Net Loss</td>
<td>$18.7</td>
<td>$21.4</td>
<td>$2.7</td>
</tr>
<tr>
<td>Adjusted EBITDA Loss</td>
<td>$13.7</td>
<td>$17.1</td>
<td>$3.4</td>
</tr>
</tbody>
</table>

**Commentary**

- **Revenue:** Revenue up 77% YoY in 4Q 2023, across all business lines. Biorefining revenue increased primarily from sales of engineering services indicating progression of projects through the pipeline.

- **Gross Profit:** Gross profit increase of 238% YoY and gross margin of 41% in 4Q 2023. Significant sequential improvement in gross margin reflective of strengthening revenue mix.

- **Net Loss:** Net loss of $18.7 million in 4Q 2023, a $2.7 million improvement compared to 4Q 2022 driven by higher gross profit.

- **Cash:** Total cash, investments, and restricted cash of $121.4 million. Cash burn reduced to $15.5 million in the fourth quarter.

**4Q and FY 2023 Disaggregated Revenue²**

- **Biorefining** revenue increased by 103% YoY to $14.2 million in 4Q 2023 and by 101% YoY to $42.6 million in 2023 driven by increases in engineering and other services revenue as well as licensing revenue.

- **CarbonSmart™** revenue increased 253% YoY to $2.1 million in 4Q 2023 and by 33% YoY to $5.3 million in 2023 from sales to multiple brand customers through commercial product campaigns.

- **Joint Development & Contract Research** revenue increased 5% YoY to $4.2 million in 4Q 2023 and by 21% YoY to $14.6 million in 2023, reflective of existing contract progression and new customer projects.

¹ Numbers may not add up due to rounding.
² Numbers may not add up due to rounding. 4Q23 Biorefining revenue includes $1.5 million of related party revenue
2024 GUIDANCE SUMMARY

REVENUE GUIDANCE: $90M - $105M
- Expect growth across the business with strong quarterly growth throughout the year
- Anticipate revenue to be back-half weighted due to several projects expected to enter construction phase in the second half of 2024
- Q1 2024 revenue expected to be similar to Q1 2023 revenue

ADJUSTED EBITDA GUIDANCE: $(65)M - $(55)M
- Focus on high-quality margin opportunities and cost control
APPENDIX:
ADDITIONAL FINANCIAL INFORMATION
RESULT OF OPERATIONS – FULL-YEAR ENDED DECEMBER 31, 2023

<table>
<thead>
<tr>
<th>(In thousands, except for per share amounts)</th>
<th>Year Ended December 31,</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2023</td>
<td>2022</td>
</tr>
<tr>
<td>Total revenue</td>
<td>62,631</td>
<td>37,343</td>
</tr>
<tr>
<td>Cost of revenues (exclusive of depreciation shown below)</td>
<td>(44,979)</td>
<td>(28,287)</td>
</tr>
<tr>
<td>Operating expenses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research and development</td>
<td>(68,142)</td>
<td>(53,191)</td>
</tr>
<tr>
<td>Depreciation expense</td>
<td>(5,452)</td>
<td>(4,660)</td>
</tr>
<tr>
<td>Selling, general and administrative expense</td>
<td>(50,438)</td>
<td>(26,804)</td>
</tr>
<tr>
<td><strong>Total operating expenses</strong></td>
<td>$ (124,032)</td>
<td>$ (84,655)</td>
</tr>
<tr>
<td>Loss from operations</td>
<td>(106,380)</td>
<td>(75,599)</td>
</tr>
<tr>
<td>Interest income, net</td>
<td>4,572</td>
<td>8</td>
</tr>
<tr>
<td>Other expense, net</td>
<td>(29,388)</td>
<td>(2,757)</td>
</tr>
<tr>
<td><strong>Total other expense, net</strong></td>
<td>(24,816)</td>
<td>(2,749)</td>
</tr>
<tr>
<td><strong>Loss before income taxes</strong></td>
<td>$ (131,196)</td>
<td>$ (78,348)</td>
</tr>
<tr>
<td>Income tax benefit</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>(Loss) gain from equity method investees, net</td>
<td>(2,902)</td>
<td>1,992</td>
</tr>
<tr>
<td><strong>Net loss</strong></td>
<td>$ (134,098)</td>
<td>$ (76,356)</td>
</tr>
<tr>
<td>Other comprehensive loss</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign currency translation adjustments</td>
<td>(376)</td>
<td>(1,449)</td>
</tr>
<tr>
<td><strong>Comprehensive loss</strong></td>
<td>$ (134,474)</td>
<td>$ (77,805)</td>
</tr>
<tr>
<td>Net loss per share - basic and diluted</td>
<td>(0.79)</td>
<td>(12.37)</td>
</tr>
<tr>
<td>Weighted-average number of common shares outstanding - basic and diluted</td>
<td>176,023,219</td>
<td>9,302,080</td>
</tr>
</tbody>
</table>
## Reconciliation of Net Loss to Adjusted EBITDA

<table>
<thead>
<tr>
<th>(In thousands)</th>
<th>Year Ended December 31,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2023</td>
</tr>
<tr>
<td><strong>Net Loss</strong></td>
<td>$ (134,098)</td>
</tr>
<tr>
<td><strong>Depreciation</strong></td>
<td>5,452</td>
</tr>
<tr>
<td><strong>Interest income, net</strong></td>
<td>(4,572)</td>
</tr>
<tr>
<td><strong>Stock-based compensation expense and change in fair value of SAFE and warrant liabilities</strong></td>
<td>728</td>
</tr>
<tr>
<td><strong>Change in fair value of the FPA Put Option and Fixed Maturity Consideration liabilities</strong></td>
<td>44,300</td>
</tr>
<tr>
<td><strong>Transaction costs on issuance of Forward Purchase Agreement</strong></td>
<td>451</td>
</tr>
<tr>
<td><strong>Loss (gain) from equity method investees, net</strong></td>
<td>2,902</td>
</tr>
<tr>
<td><strong>One-time costs related to the Business Combination and initial securities registration</strong></td>
<td>4,693</td>
</tr>
<tr>
<td><strong>Adjusted EBITDA</strong></td>
<td>$ (80,144)</td>
</tr>
</tbody>
</table>

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(1)  Stock-based compensation expense represents expense related to equity compensation plans

(2)  Represents costs incurred related to the Business Combination that do not meet the direct and incremental criteria per SEC Staff Accounting Bulletin Topic 5.A to be charged against the gross proceeds of the transaction, but are not expected to recur in the future, as well as costs incurred subsequent to deal close related to our securities registration on Form S-4 and our registration statement on Form S-1.
APPENDIX:
EXECUTIVE TEAM BIOGRAPHIES OF PROMOTED INDIVIDUALS
From environmental engineer to senior business leader, Aura Cuellar is determined to lead the energy industry on a path to profitable decarbonization. As LanzaTech’s President, Aura brings to her role extensive experience in manufacturing and a successful track record in global strategy development and implementation. Her time living and working in Europe, Africa, Asia and North and South America has shaped her inclusive world view and deep appreciation for regional approaches to address climate change and deliver growth.

Prior to joining LanzaTech, Aura served as Vice President of Energy Transition for Shell in the United States. In her 25-year tenure at Shell, she advanced across various global senior executive roles including Head of Projects and Turnarounds in The Netherlands and being responsible for an annual capital projects portfolio of $500 million. Aura’s leadership was forged in manufacturing assets, including P&L responsibility and strategic commercial partnership development for sustainable revenue pipelines. Aura is passionate about cultural transformation with a focus on innovation and social equity. She excels in building integrated, robust teams in which individuals are empowered to deliver impactful commercial results.

Aura also serves as Honorary Consul to the Kingdom of The Netherlands in Houston, a role in which she contributes to addressing the shared challenges of climate adaptation and resilience, health and vitality, sustainable mobility, and the energy transition. Originally from Colombia, Aura holds a bachelor’s degree in Environmental and Civil Engineering from Seattle University, an MBA from Western Washington University, and completed Executive General Management from INSEAD and Harvard’s Women on Boards Program.
Dr. Zara Summers is currently the Chief Science Officer at LanzaTech. She spent almost 10 years at ExxonMobil where she held a variety of scientific and leadership positions, all focused on helping to provide biological solutions for navigating the energy transition. Most recently, Zara worked to drive the development of a corporate research strategy on Nature Based Solutions and worked to understand the impacts of subsurface microorganisms on underground CO2 sequestration. Throughout her career, Zara has been most energized by working to identify solutions to enhance economic, environmental, and climate stability. At LanzaTech, Zara leads the passionate and innovative Science team, combining biology and engineering to tackle carbon transformation. The Science team works to provide solutions to address society’s challenge of mitigating climate change while providing the world the energy and products required to not only survive, but thrive.

Zara holds a Ph.D. in Microbiology from the University of Massachusetts and completed her postdoctoral work at the University of Minnesota.
Dr. Robert Conrado is LanzaTech’s Chief Technology Officer and previously served as LanzaTech’s Executive Vice President of Engineering Design and Development since September 2023. Robert has held various engineering leadership roles at LanzaTech since joining the company in 2013, serving as Vice President of Engineering Design and Development from October 2018 to September 2023, Director of Engineering Design and Development from 2016 to October 2018, and Manager of Engineering Design and Development from 2015 to 2016. Prior to his tenure at LanzaTech, Robert was a founding Senior Fellow at the Advanced Research Projects Agency — Energy (ARPA-E) within the U.S. Department of Energy.

Robert holds a Ph.D. from Cornell University in Chemical and Biomolecular Engineering, and a B.E. from Dartmouth College in Biochemical Engineering.
FINANCIAL INFORMATION & NON-GAAP FINANCIAL MEASURES

To supplement our financial statements presented in accordance with US GAAP and to provide investors with additional information regarding our financial results, we have presented adjusted EBITDA, a non-GAAP financial measure. Adjusted EBITDA is not based on any standardized methodology prescribed by US GAAP and is not necessarily comparable to similarly titled measures presented by other companies.

We define adjusted EBITDA as our net loss, excluding the impact of depreciation, interest income, net, stock-based compensation, change in fair value of warrant liabilities, change in fair value of SAFE liabilities, change in fair value of the prepaid forward contract derivative and Fixed Maturity Consideration, transaction costs on issuance of Forward Purchase Agreement, (gain) loss from equity method investees and other one-time costs related to the Business Combination and initial securities registration. We monitor and have presented in this Quarterly Report adjusted EBITDA because it is a key measure used by our management and the Board to understand and evaluate our operating performance, to establish budgets, and to develop operational goals for managing our business. We believe adjusted EBITDA helps identify underlying trends in our business that could otherwise be masked by the effect of certain expenses that we include in net loss. Accordingly, we believe adjusted EBITDA provides useful information to investors, analysts, and others in understanding and evaluating our operating results and enhancing the overall understanding of our past performance and future prospects.

Adjusted EBITDA is not prepared in accordance with US GAAP and should not be considered in isolation of, or as an alternative to, measures prepared in accordance with US GAAP. There are a number of limitations related to the use of adjusted EBITDA rather than net loss, which is the most directly comparable financial measure calculated and presented in accordance with US GAAP. For example, adjusted EBITDA: (i) excludes stock-based compensation expense because it is a significant non-cash expense that is not directly related to our operating performance; (ii) excludes depreciation expense and, although this is a non-cash expense, the assets being depreciated and amortized may have to be replaced in the future; (iii) excludes gain or losses on equity method investee; and (iv) excludes certain income or expense items that do not provide a comparable measure of our business performance. In addition, the expenses and other items that we exclude in our calculations of adjusted EBITDA may differ from the expenses and other items, if any, that other companies may exclude from adjusted EBITDA when they report their operating results. In addition, other companies may use other measures to evaluate their performance, all of which could reduce the usefulness of our non-GAAP financial measures as tools for comparison.

The Company does not provide a reconciliation of forward-looking non-GAAP financial measures to the most comparable U.S. GAAP financial measures on a forward-looking basis because the Company is unable to predict with reasonable certainty the ultimate outcome of pending litigation, unusual gains and losses, foreign currency exchange gains or losses and potential future asset impairments, as well as discrete taxable events, without unreasonable effort. These items are uncertain, depend on various factors, and could have a material impact on U.S. GAAP results for the guidance period.