

PROSPECTUS

PURECYCLE TECHNOLOGIES, INC.

15,039,729 Shares of Common Stock

This prospectus relates to the offer and sale from time to time, on a resale basis, by the selling stockholders identified herein (the “Selling Stockholders”) or their permitted transferees, of up to an aggregate of 15,039,729 shares (“Common Shares”) of our common stock, par value \$0.001 per share (“Common Stock”), consisting of: (i) 8,528,786 shares of Common Stock that are issued and outstanding (“Private Placement Common Shares”), (ii) 5,000,000 shares of Common Stock (“Series C Warrant Common Shares”) issuable upon exercise of Series C warrants (“Series C Warrants”) and (iii) 1,510,943 shares of Common Stock (the “RTI Warrant Common Shares”) issuable upon exercise of redeemable conditional warrants (“RTI Warrants”), held by the Selling Stockholders. The Private Placement Common Shares and Series C Warrants were issued to the Selling Stockholders in connection with a private placement we completed on September 13, 2024 (the “Private Placement”). The RTI Warrants were originally issued to Resin Technology, Inc. on June 29, 2018 in connection with the terms of a professional services agreement entered into with PureCycle Technologies LLC. The RTI Warrants were then later assigned to Recycled Resin Investors, LLC in October 2020 before being issued in their current form to Recycled Resin Investors, LLC in connection with the Business Combination (as defined below). We will not receive any of the proceeds from the sale by the Selling Stockholders of the Private Placement Common Shares, Series C Warrant Common Shares or RTI Warrant Common Shares. Upon any exercise of the Series C Warrants or RTI Warrants by payment of cash, however, we will receive the exercise price of such Series C Warrants or RTI Warrants.

The Selling Stockholders may sell or otherwise dispose of the Common Shares covered by this prospectus in a number of different ways and at varying prices. The Selling Stockholders may offer and sell shares of Common Stock in public or private transactions, or both. We provide more information about how the Selling Stockholders may sell or otherwise dispose of the Common Shares covered by this prospectus in the section entitled “Plan of Distribution” beginning on page 32. Discounts, concessions, commissions and similar selling expenses attributable to the sale of Common Shares covered by this prospectus will be borne by the Selling Stockholders. We will pay all expenses (other than discounts, concessions, commissions and similar selling expenses) relating to the registration of the Common Shares with the Securities and Exchange Commission (the “SEC”).

You should carefully read this prospectus and any accompanying prospectus supplement, together with the documents we incorporate by reference, before you invest in our Common Stock.

Our Common Stock, publicly traded warrants and publicly traded units are listed on the Nasdaq Capital Market (“NASDAQ”) under the symbols “PCT,” “PCTTW” and “PCTTU,” respectively. On January 15, 2025, the last reported sales price of our Common Stock was \$9.59 per share, the last reported sales price of our publicly traded warrants (“Public Warrants”) was \$3.00 per Public Warrant and the last reported sales price of our units was \$11.23 per unit.

Investing in our Common Stock is highly speculative and involves a high degree of risk. See “[Risk Factors](#)” beginning on page 5 of this prospectus and any risk factors described in any applicable prospectus supplement and in the documents we incorporate by reference.

Neither the SEC nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is January 15, 2025

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement we filed with the SEC using a “shelf” registration process. Under this shelf registration process, the Selling Stockholders may, from time to time, offer and sell, on a resale basis, the securities described in this prospectus in one or more offerings. The Selling Stockholders may use the shelf registration statement to sell up to an aggregate of 15,039,729 Common Shares from time to time through any means described in the section entitled “Plan of Distribution.” More specific terms of any securities that the Selling Stockholders offer and sell may be provided in a prospectus supplement that describes, among other things, the specific amounts and prices of the Common Shares being offered and the terms of the offering.

We will not receive any proceeds from the sale by the Selling Stockholders of the securities offered by them described in this prospectus, except with respect to amounts received by us upon exercise of the Series C Warrants or RTI Warrants to the extent such warrants are exercised for cash.

A prospectus supplement may also add, update or change information included in this prospectus. Any statement contained in this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in such prospectus supplement modifies or supersedes such statement. Any statement so modified will be deemed to constitute a part of this prospectus only as so modified, and any statement so superseded will be deemed not to constitute a part of this prospectus.

You should rely only on the information contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus. We and the Selling Stockholders have not authorized anyone to provide any information or to make any representations other than those contained in this prospectus or any free writing prospectus we have prepared. We and the Selling Stockholders take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the securities offered hereby and only under circumstances and in jurisdictions where it is lawful to do so. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus or any related free writing prospectus. This prospectus and any accompanying prospectus supplement is not an offer to sell any securities other than the registered securities to which they relate, nor do this prospectus and any accompanying prospectus supplement constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should assume that the information appearing in this prospectus or any applicable prospectus supplement is accurate only as of the date on the front cover of such document, regardless of the time of delivery of this prospectus or time of any sale of a security. Our business, financial condition, results of operations and prospects may have changed since those dates. See “Where You Can Find More Information.”

Unless the context otherwise requires, all references to “PCT,” “PureCycle,” the “Company,” “we,” “us,” or “our” refer to PureCycle Technologies, Inc.

SUMMARY

This summary highlights certain information appearing elsewhere in this prospectus and in the documents we incorporate by reference into this prospectus. The summary is not complete and does not contain all of the information that you should consider before investing in our Common Stock. After you read this summary, you should read and consider carefully the entire prospectus and any prospectus supplement and the more detailed information and financial statements and related notes that are incorporated by reference into this prospectus and any prospectus supplement. If you invest in our shares, you are assuming a high degree of risk.

The Company

PCT is commercializing a patented purification recycling technology (the “Technology”), originally developed by The Procter & Gamble Company (“P&G”), for restoring waste polypropylene into resin with near-virgin characteristics, called ultra-pure recycled (“UPR”) resin, which has nearly identical properties and applicability for reuse as virgin polypropylene. PCT has a global license for the Technology from P&G. In April 2023, we certified as mechanically complete our first commercial scale recycling facility (the “Ironton Facility”), which we expect to have capacity of approximately 107 million pounds/year when fully operational. Commissioning activities have begun, but the plant is not yet operating at the expected full capacity. Our goal is to create an important new segment of the global polypropylene market that will assist multinational entities in meeting their sustainability goals, provide consumers with polypropylene-based products that are sustainable, and reduce overall polypropylene waste in the world’s landfills and oceans.

PCT’s process includes two steps: FeedPre-Processing (“Feed PreP”) and the use of the Technology for purification. The Feed PreP step will collect, sort, and prepare polypropylene waste (“feedstock”) for purification. The purification step is a purification recycling process that uses a combination of solvent, temperature, and pressure to return the feedstock to near-virgin condition through a novel configuration of commercially available equipment and unit operations. The purification process puts the plastic through a physical extraction process using super critical fluids that both extract and filter out contaminants and purify the color, opacity, and odor of the plastic without changing the bonds of the polymer. By not altering the chemical makeup of the polymer, the Company is able to use significantly less energy and reduce production costs as compared to virgin resin.

PCT intends to build new recycling production facilities globally, as project financing becomes available. In addition to the Ironton Facility and our first U.S. facility with multiple lines for purification (“multi-line facility”) to be located in Augusta, Georgia (the “Augusta Facility”), and multiple Feed PreP facilities centrally located, we currently expect the next plant to be located in the Port of Antwerp in Belgium. The Augusta Facility will be our first scaled up multi-line facility model. Pre-engineering for the design and installation of multiple commercial lines at the Augusta Facility is currently underway and is expected to create efficiencies across the construction and permitting processes. Further, we have placed orders for our long-lead equipment for the Augusta Facility, with additional construction progress expected to begin sometime in late 2024, pending timely completion of project financing.

PCT is pursuing a leading role in solvent-based polypropylene recycling. PCT’s Feedstock Evaluation Unit (“FEU”), which has been operational since July 2019, is a smaller scale replica of the Ironton Facility. The FEU was designed to simulate commercial production and validate for PCT’s customers and suppliers the viability of our process, which has helped PCT secure 20+ year signed offtake agreements and feedstock supply agreements with large multi-national partners and industry participants. Based on the testing PCT has performed and continues to perform through the FEU and independent labs, PCT believes a sufficient number of feedstock sources have been identified that are suitable for its purification technology. PCT has partnered with suppliers to

provide the required mix and quality of feedstock necessary to meet its offtake requirements at Ironton, and believes it will be able source feedstock sufficient to support future operations in the U.S., Europe, and Asia.

The Technology has been evaluated by third parties with a focus on the Technology's efficacy and commercial scalability. Certain of our strategic partners have conducted testing on PCT's UPR resin. In these evaluations, PCT's UPR resin compared favorably to virgin polypropylene in common Food & Beverage industry benchmarks for melt flow and mechanical properties, purity, odor, and function (lift decay, hinge break, and impact resistance).

Background

On March 17, 2021, PCT consummated the business combination ("Business Combination") by and among Roth CH Acquisition I Co., a Delaware corporation ("ROCH"), Roth CH Acquisition I Co. Parent Corp., a Delaware corporation and wholly owned direct subsidiary of ROCH ("ParentCo"), Roth CH Merger Sub LLC, a Delaware limited liability company and wholly owned direct subsidiary of Parent Co, Roth CH Merger Sub Corp., a Delaware corporation and wholly owned direct subsidiary of ParentCo and PureCycle Technologies LLC ("PCT LLC") pursuant to the Agreement and Plan of Merger dated as of November 16, 2020, as amended from time to time (the "Merger Agreement").

Upon the completion of the Business Combination and the other transactions contemplated by the Merger Agreement (the "Transactions", and such completion, the "Closing"), ROCH changed its name to PureCycle Technologies Holdings Corp. and became a wholly owned direct subsidiary of ParentCo, PCT LLC became a wholly owned direct subsidiary of PureCycle Technologies Holdings Corp. and a wholly owned indirect subsidiary of ParentCo, and ParentCo changed its name to PureCycle Technologies, Inc. The Common Stock, units and Public Warrants are listed on the Nasdaq Capital Market ("NASDAQ") under the symbols "PCT," "PCTTU" and "PCTTW," respectively.

RTI Warrants

On June 29, 2018, the PCT LLC board of directors approved the issuance of warrants (the "Legacy RTI Warrants") to Resin Technology, Inc. under the terms of a professional services agreement (the "Professional Services Agreement") to purchase an aggregate of 143,619 PCT LLC Class C Units at an aggregated exercise price of \$37.605 per unit. The Legacy RTI Warrants vested immediately upon issuance and originally were set to expire on June 29, 2023 or upon a change in control event, as such term is defined in the warrant agreement (the "Legacy RTI Warrant Agreement"). The RTI Warrants were then later assigned to Recycled Resin Investors, LLC in October 2020. In connection with the Business Combination, on November 20, 2020, the Legacy RTI Warrant Agreement was modified such that the Legacy RTI Warrants (i) became exercisable for 1,510,943 shares of Common Stock instead of PCT LLC Class C Units, (ii) became exercisable on the closing of the Business Combination, (iii) expire on December 31, 2024 and (iv) are exercisable at \$3.57 per RTI Warrant Common Share. On December 27, 2024, the Legacy RTI Warrant Agreement was modified such that the Legacy RTI Warrants expire on January 17, 2025.

The issuance and sale of RTI Warrants pursuant to the Professional Services Agreement and the issuance and sale of the RTI Warrant Common Shares issuable upon exercise of the RTI Warrants were and will not be registered under the Securities Act of 1933 (the "Securities Act"), and were and will be offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act and Regulation D promulgated thereunder.

2024 Private Placement

On September 11, 2024, the Company entered into subscription agreements (the "Subscription Agreements") with certain investors (the "Investors"), pursuant to which the Company agreed to sell to the

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Investors, in the Private Placement, an aggregate of 50,000 shares of our Series A Preferred Stock, par value \$0.001 per share (the “Preferred Stock”), 8,528,786 shares of Common Stock and Series C Warrants to purchase an aggregate of 5,000,000 shares of Common Stock at a price of \$11.50 per share of Common Stock. The Private Placement closed on September 13, 2024.

The shares of Preferred Stock were issued pursuant to a Certificate of Designations (the “Certificate of Designations”) filed on September 13, 2024 with the Secretary of State of the State of Delaware to establish the preferences, limitations and relative rights of the Preferred Stock. The Certificate of Designations amended our Restated Certificate of Incorporation, as amended, and was effective immediately on filing. Pursuant to the Certificate of Designations, the shares of Preferred Stock have a maturity date three years after the initial issue date and accrue a return equal to 8% per annum (the “Return”), payable quarterly in cash or in-kind at the election of the holder (subject to applicable withholding tax). Shares of Preferred Stock are subject to (i) a mandatory redemption upon the occurrence of certain triggering events related to the incurrence of additional indebtedness, (ii) a mandatory redemption on the date that is three years after original issuance (the “Maturity Date”) and (iii) an optional redemption, at our election, at any time prior to the Maturity Date. Each share of Preferred Stock is redeemable for (i) cash in the amount of the issue price of \$1,000 per share (the “Initial Issue Price”), (ii) a number of shares of Common Stock equal to the Initial Issue Price divided by \$4.69, or (iii) a combination of cash and shares of Common Stock, in each case including accrued but unpaid Return to the redemption date and after multiplying the number of shares of Preferred Stock by 1.05. If the holder elects upon redemption to receive Common Stock (“Preferred Stock Common Stock”) and such holder’s beneficial ownership would exceed (i) 19.9% of the outstanding shares of Common Stock (the “Stock Issuance Cap”) or (ii) the Stock Issuance Cap as of immediately prior to the original issue date for the Preferred Stock, then in lieu of such shares, the holder will receive a number of pre-funded warrants exercisable for an equivalent number of shares of Preferred Stock Common Stock (“Pre-Funded Warrants”, and the shares of Common Stock issuable upon exercise of the Pre-Funded Warrants, the “Pre-Funded Warrant Shares”). The Pre-Funded Warrants will expire seven years after issuance and will be immediately exercisable by the holder for shares of Common Stock, provided that such exercise does not cause such holder’s beneficial ownership to exceed the Stock Issuance Cap. Upon (i) any liquidation, bankruptcy, insolvency, dissolution or winding up of the affairs of the Company or (ii) certain exit events, the holders of Preferred Stock shall be entitled to receive an amount per share of Series A Preferred Stock equal to 1.05 multiplied by the original issue price of the Preferred Stock.

On September 17, 2024, the holders all of the shares of Preferred Stock entered into waivers (the “Waiver Agreements”) to irrevocably and unconditionally waive (and consent to such waivers for purposes of Section 12 of the Certificate of Designations) the rights of the holders of shares of Preferred Stock, (i) pursuant to the Certificate of Designations, (a) to elect to receive shares of Common Stock or Pre-Funded Warrants in connection with redemption events under the Certificate of Designations, (b) to elect to receive additional shares of Preferred Stock on Return payment dates, and (c) to receive Return payments on the first three quarterly Return payment dates within each one-year period following the issue date and to instead receive such Return payments on the fourth quarterly Return payment date within each one-year period following the issue date (subject to applicable withholding tax), such that each holder of Preferred Stock shall receive Return payments for the entire one-year period preceding each such fourth quarterly Return payment date, and (ii) pursuant to the Subscription Agreements, to require us to register the shares of Common Stock issuable upon redemption of the Preferred Stock on a registration statement filed by the Company.

The Series C Warrants have an exercise price of \$11.50 per share, were exercisable beginning on the date of issuance (subject to the beneficial ownership of a holder, including its affiliates, not exceeding the Stock Issuance Cap upon exercise), will expire on December 1, 2030 and are redeemable at a price of \$0.01 per Series C Warrant if the last sales price of the Common Stock has been equal to or greater than \$22.00 per share (subject to adjustment for splits, dividends, recapitalizations and other similar events) for any twenty (20) trading days within a thirty (30) trading day period.

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The issuance and sale of the shares of Common Stock, Series C Warrants and Preferred Stock pursuant to the Subscription Agreements and the issuance and sale of the Series C Warrant Common Shares issuable upon exercise of the Series C Warrants were and will not be registered under the Securities Act, and were and will be offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act and Regulation D promulgated thereunder.

One of the reasons we are filing the registration statement of which this prospectus forms a part is to satisfy our obligations under the Subscription Agreements.

Corporate Information

The mailing address of PCT's principal executive office is 20 North Orange Avenue, Suite 106, Orlando, Florida 32081, and its telephone number is 877-648-3565.

RISK FACTORS

Investing in our Common Stock involves a high degree of risk. You should carefully consider and evaluate the risk factors included in our most recent Annual Report on Form 10-K, as may be updated by our subsequent filings under the Securities Exchange Act of 1934 (the “Exchange Act”) that are incorporated by reference into this prospectus, including Quarterly Reports on Form 10-Q, together with the risk factors and other information contained in or incorporated by reference into any applicable prospectus supplement, before making an investment decision. The occurrence of any of these risks and uncertainties could harm our business, financial condition or results of operations. As a result, the trading price of our Common Stock could decline and you could lose all or part of your investment.

Risks Related to the Common Stock

The Common Stock ranks junior to the Preferred Stock and all of PCT’s and its subsidiaries’ liabilities in the event of a bankruptcy, liquidation or winding-up.

In the event of bankruptcy, liquidation or winding-up, our assets will be available to pay obligations on the shares of Common Stock only after all of our liabilities, such as all indebtedness and other non-equity claims, have been paid. In addition, the Common Stock effectively ranks junior to the holders of Preferred Stock and all existing and future liabilities of our subsidiaries. The rights of holders of shares of Common Stock to participate in the assets of our subsidiaries upon any liquidation or reorganization of any subsidiary will rank junior to the prior claims of that subsidiary’s creditors. In the event of bankruptcy, liquidation or winding-up, there may not be sufficient assets remaining, after paying our liabilities and our subsidiaries’ liabilities and the holders of Preferred Stock, to pay amounts due on shares of Common Stock.

There may be future sales or other dilution of our equity, which may adversely affect the market price of our Common Stock and may negatively impact the holders’ investment.

Except in certain circumstances, we are not restricted from issuing additional shares of Common Stock or preferred stock, including any securities that are convertible into or exchangeable for, or that represent the right to receive, Common Stock or preferred stock or any substantially similar securities. The market price of our Common Stock could decline as a result of sales of a large number of shares of Common Stock, warrants exercisable for Common Stock or Preferred Stock or similar securities in the market or the perception that such sales could occur. For example, if we issue preferred stock in the future that has a preference over our Common Stock with respect to the payment of dividends or upon our liquidation, dissolution or winding-up, or if we issue preferred stock with voting rights that dilute the voting power of our Common Stock, the rights of holders of our Common Stock or the market price of our Common Stock could be adversely affected.

Our ability to use our net operating loss carryforwards may be limited and may be further diminished as a result of the investors investing in our Common Stock.

As of December 31, 2023, we have \$340.4 million of gross U.S. federal net operating loss (“NOL”) carryforwards, \$8.7 million post apportioned gross state net of operating loss carryforwards, and \$26.2 million of research and development tax credit carryforwards. Our ability to fully utilize our NOLs and tax credits can be adversely affected by “ownership changes” within the meaning of Section 382 of the Internal Revenue Code of 1986, as amended (the “Code”), in a three-year period. Any ownership change is generally defined as a greater than 50% increase in equity ownership by “5% stockholders,” as that term is defined for purposes of Section 382 of the Code in any three-year period. Although we have not completed a full analysis under Section 382, equity financings and other transactions that have occurred since we became a publicly traded company may have resulted in an owners changes as defined in Section 382, thereby significantly reducing our ability to utilize our NOLs. Further, as a result of the investors investing in our Common Stock and preferred stock, our ability to utilize our NOLs may be further diminished.

CAUTIONARY STATEMENT ON FORWARD-LOOKING STATEMENTS

This prospectus and any prospectus supplement contains and incorporates by reference statements that express our opinions, expectations, beliefs, plans, objectives, assumptions or projections regarding future events or future results and therefore are, or may be deemed to be forward-looking statements within as defined in Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), the Private Securities Litigation Reform Act of 1995, as amended (the “PSLRA”) or in releases made by the SEC, including statements about the financial condition, results of operations, earnings outlook and prospects of PCT. Forward-looking statements are typically identified by words such as “plan,” “believe,” “expect,” “anticipate,” “intend,” “outlook,” “estimate,” “forecast,” “project,” “continue,” “could,” “may,” “might,” “possible,” “potential,” “predict,” “should,” “would” and other similar words and expressions (or the negative versions of such words or expressions), but the absence of these words does not mean that a statement is not forward-looking. They appear in a number of places throughout this prospectus and any prospectus supplement and in the documents incorporated by reference herein.

The forward-looking statements are based on the current expectations of the management of PCT and are inherently subject to uncertainties and changes in circumstances and their potential effects and speak only as of the date of this prospectus. There can be no assurance that future developments will be those that have been anticipated. These forward-looking statements involve a number of risks, uncertainties or other assumptions that may cause actual results or performance to be materially different from those expressed or implied by these forward-looking statements. We believe that important factors that could cause our actual results to differ materially from forward-looking statements include, but are not limited to, the risks and uncertainties outlined in the “Risk Factors” incorporated by reference into this prospectus from our most recent Annual Report on Form 10-K and subsequent Quarterly Reports on Form 10-Q and contained in or incorporated by reference into any prospectus supplement and other matters described herein generally. Some of these factors include:

- PCT’s ability to obtain funding for its operations and future growth and to continue as a going concern;
- PCT’s ability to meet, and to continue to meet, applicable regulatory requirements for the use of PCT’s UPR resin (as defined below) in food grade applications (including in the United States, Europe, Asia and other future international locations);
- PCT’s ability to comply on an ongoing basis with the numerous regulatory requirements applicable to the UPR resin and PCT’s facilities (including in the United States, Europe, Asia and other future international locations);
- expectations and changes regarding PCT’s strategies and future financial performance, including its future business plans, expansion plans or objectives, prospective performance and opportunities and competitors, revenues, products and services, pricing, operating expenses, market trends, liquidity, cash flows and uses of cash, capital expenditures, and PCT’s ability to invest in growth initiatives;
- the ability of the Ironton Facility to be appropriately certified by Leidos Engineering, LLC (“Leidos”), following certain performance and other tests, and commence full-scale commercial operations in a timely and cost-effective manner, or at all;
- PCT’s ability to meet, and to continue to meet, the requirements imposed upon it and its subsidiaries by the funding for its operations, including the funding for the Ironton Facility;
- PCT’s ability to minimize or eliminate the many hazards and operational risks at its manufacturing facilities that can result in potential injury to individuals, disrupt its business (including interruptions or disruptions in operations at its facilities), and subject PCT to liability and increased costs;
- PCT’s ability to complete the necessary funding with respect to, and complete the construction of the Augusta Facility and its first commercial-scale European plant located in Antwerp, Belgium, in a timely and cost-effective manner;

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- PCT's ability to procure, sort and process polypropylene plastic waste at its planned Feed PreP facilities;
- PCT's ability to maintain exclusivity under the P&G license;
- the implementation, market acceptance and success of PCT's business model and growth strategy;
- the success or profitability of PCT's offtake arrangements;
- the ability to source feedstock with a high polypropylene content at a reasonable cost;
- PCT's future capital requirements and sources and uses of cash;
- developments and projections relating to PCT's competitors and industry;
- the outcome of any legal or regulatory proceedings to which PCT is, or may become, a party including the securities class action and putative class action cases;
- geopolitical risk and changes in applicable laws or regulations;
- the possibility that PCT may be adversely affected by other economic, business, and/or competitive factors, including interest rates, availability of capital, economic cycles, and other macro-economic impacts;
- turnover or increases in employees and employee-related costs;
- changes in the prices and availability of labor (including labor shortages), transportation and materials, including inflation, supply chain conditions and its related impact on energy and raw materials, and PCT's ability to obtain them in a timely and cost-effective manner;
- any business disruptions due to political or economic instability, pandemics, armed hostilities (including the ongoing conflict between Russia and Ukraine and the conflict in the Middle East);
- the potential impact of climate change on PCT, including physical and transition risks, higher regulatory and compliance costs, reputational risks, and availability of capital on attractive terms; and
- operational risk.

In light of the foregoing, we caution you not to place undue reliance on our forward-looking statements. Any forward-looking statement that we make in this prospectus and any prospectus supplement speaks only as of the date of such statement, and we undertake no obligation to update any forward-looking statement or to publicly announce the results of any revision to any of those statements to reflect future events or developments. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless specifically expressed as such, and should only be viewed as historical data. Furthermore, new risks and uncertainties arise from time to time, and it is impossible for us to predict those events or how they may affect us.

USE OF PROCEEDS

All of the Common Shares offered by the Selling Stockholders pursuant to this prospectus will be sold by the Selling Stockholders for their respective accounts. We will not receive any of the proceeds from these sales.

We will receive up to an aggregate of approximately \$62.9 million, consisting of (i) \$57.5 million from the exercise of all Series C Warrants and (ii) \$5.4 million from the exercise of all RTI Warrants, in each case assuming the exercise in full of all such warrants for cash.

We expect to use the net proceeds from the exercise of such Series C Warrants and RTI Warrants for general corporate purposes which may include acquisitions or other strategic investments or repayment of outstanding indebtedness. Our management will have broad discretion over the use of proceeds from the cash exercise of the Series C Warrants and RTI Warrants.

There is no assurance that the holders of the Series C Warrants or the RTI Warrants will elect to exercise any or all of such warrants. To the extent that the Series C Warrants are exercised on a "cashless basis," the amount of cash we would receive from the exercise of the Series C Warrants will decrease.

DESCRIPTION OF SECURITIES

The following description of our capital stock is intended as a summary only and is qualified in its entirety by reference to our Amended and Restated Certificate of Incorporation ("Amended and Restated Certificate of Incorporation"), as amended by our Certificate of Designations, and Second Amended and Restated Bylaws ("Second Amended and Restated Bylaws"). We encourage you to read these documents and the applicable portion of the Delaware General Corporation Law, as amended (the "DGCL"), and our Amended and Restated Certificate of Incorporation, Certificate of Designations and our Second Amended and Restated Bylaws carefully and in their entirety because they describe your rights as a holder of shares of our Common Stock.

Common Stock

Our authorized capital stock consists of 450,000,000 shares of Common Stock and 25,000,000 shares of preferred stock, par value \$0.001 per share.

Holders of shares of Common Stock are entitled to one vote for each share held of record on all matters submitted to a vote of stockholders. The holders of shares of Common Stock do not have cumulative voting rights in the election of directors. Upon the Company's liquidation, dissolution or winding up and after payment in full of all amounts required to be paid to creditors and to the holders of preferred stock having liquidation preferences, if any, the holders of shares of Common Stock will be entitled to receive pro rata the Company's remaining assets available for distribution. Holders of shares of Common Stock do not have preemptive, subscription, redemption or conversion rights. The Common Stock will not be subject to further calls or assessment by the Company. There will be no redemption or sinking fund provisions applicable to the Common Stock. All shares of the Common Stock that are outstanding are fully paid and non-assessable. The rights, powers, preferences and privileges of holders of shares of Common Stock will be subject to those of the holders of any shares of the Company's preferred stock the Company may authorize and issue in the future.

When a quorum is present at any meeting, any matter other than the election of directors to be voted upon by the stockholders at such meeting will be decided by a majority vote of the holders of shares of capital stock present or represented at the meeting and voting affirmatively or negatively on such matter. At all meetings of stockholders for the election of directors at which a quorum is present, a plurality of the votes cast will be sufficient to elect such directors.

Preferred Stock

The Amended and Restated Certificate of Incorporation authorizes the Company's board of directors to establish one or more series of preferred stock. Unless required by law or by NASDAQ, the authorized shares of preferred stock will be available for issuance without further action by you. The Company's board of directors is authorized to fix from time to time before issuance the number of shares of preferred stock to be included in any such series and the designation, powers, preferences and relative participating, optional or other rights, if any, and the qualifications, limitations or restrictions thereof. The authority of the Company's board of directors with respect to each such series will include, without limiting the generality of the foregoing, the determination of any or all of the following:

- the number of shares of any series and the designation to distinguish the shares of such series from the shares of all other series;
- the voting powers, if any, and whether such voting powers are full or limited in such series;
- the redemption provisions, if any, applicable to such series, including the redemption price or prices to be paid;
- whether dividends, if any, will be cumulative or noncumulative, the dividend rate of such series, and the dates and preferences of dividends on such series;

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- the rights of such series upon the voluntary or involuntary dissolution of, or upon any distribution of the assets of, the Company;
- the provisions, if any, pursuant to which the shares of such series are convertible into, or exchangeable for, shares of any other class or classes or of any other series of the same or any other class or classes of stock, or any other security, of the Company or any other corporation or other entity, and the rates or other determinants of conversion or exchange applicable thereto;
- the right, if any, to subscribe for or to purchase any securities of the Company or any other corporation or other entity;
- the provisions, if any, of a sinking fund applicable to such series; and
- any other relative, participating, optional, or other special powers, preferences or rights and qualifications, limitations, or restrictions thereof;

all as may be determined from time to time by the Company's board of directors and stated or expressed in the resolution or resolutions providing for the issuance of such preferred stock (collectively, a "Preferred Stock Designation").

The Company could issue a series of preferred stock that could, depending on the terms of the series, impede or discourage an acquisition attempt or other transaction that some, or a majority, of the holders of the Common Stock might believe to be in their best interests or in which the holders of the Common Stock might receive a premium for their Common Stock over its market price. Additionally, the issuance of preferred stock may adversely affect the rights of holders of the Common Stock by restricting dividends on the Common Stock, diluting the voting power of the Common Stock or subordinating the liquidation rights of the Common Stock. As a result of these or other factors, the issuance of preferred stock could have an adverse impact on the market price of the Common Stock. The Company has no current plans to issue any new series of preferred stock.

Series A Preferred Stock

On September 13, 2024, we filed the Certificate of Designations with the Secretary of State of the State of Delaware that established the preferences, limitations and relative rights of the Preferred Stock and authorized for issuance 100,000 shares of Preferred Stock. The Amended and Restated Certificate of Incorporation was amended, effective immediately, upon the filing of the Certificate of Designations.

Ranking

Preferred Stock ranks senior to shares of Common Stock with respect to rights on the distribution of assets on any voluntary or involuntary liquidation, dissolution or winding up of the affairs of our company.

Liquidation Preference

Each share of Preferred Stock has a liquidation preference of the Initial Issue Price multiplied by 1.05 (the "Liquidation Preference").

Dividend and Return Rights

Pursuant to the Certificate of Designations, the shares of Preferred Stock have a maturity date three years after the initial issue date and accrue the Return, payable quarterly in cash or in-kind at the election of the holder. Pursuant to the Waiver Agreements, the holders of all of the shares of Preferred Stock elected to irrevocably and unconditionally waive (and consented to such waivers for purposes of Section 12 of the Certificate of Designations) the right to receive Return payments on the first three quarterly Return payment dates within each one-year period following the issue date and to instead receive such Return payments on the fourth quarterly

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Return payment date within each one-year period following the issue date, such that each holder of Preferred Stock shall receive Return payments for the entire one-year period on each such fourth quarterly Return payment date.

Maturity

Preferred Stock matures three years after the original issuance date.

Conversion and Redemption

Shares of Preferred Stock are subject to (i) a mandatory redemption upon the occurrence of certain triggering events related to the incurrence of additional indebtedness not otherwise permitted under our existing credit agreement, dated as of March 15, 2023, (ii) a mandatory redemption on the Maturity Date and (iii) an optional redemption, at our election, at any time prior to the Maturity Date. Each share of Preferred Stock is redeemable for an amount equal to the Initial Issue Price multiplied by 1.05, which amount shall be payable in (i) cash, (ii) a number of shares of Common Stock equal to such amount divided by \$4.69, or (iii) a combination of cash and shares of Common Stock, in each case including accrued but unpaid Return to the redemption date.

If the holder elects upon redemption to receive Preferred Stock Common Stock and such holder's beneficial ownership would exceed the Stock Issuance Cap, then in lieu of such shares, the holder will receive a number of Pre-Funded Warrants exercisable for an equivalent number of Preferred Stock Common Stock. The Pre-Funded Warrants will expire seven years after issuance and will be immediately exercisable by the holder for shares of Common Stock, provided that such exercise does not cause such holder's beneficial ownership to exceed the Stock Issuance Cap.

Pursuant to the Waiver Agreements, the holders of all of the shares of Preferred Stock irrevocably and unconditionally waived (and consented to such waivers for purposes of Section 12 of the Certificate of Designations) the rights of such holders of shares of Preferred Stock, (i) to elect to receive shares of Common Stock or Pre-Funded Warrants in connection with redemption events under the Certificate of Designations and (ii) to elect to receive additional shares of Preferred Stock on Return payment dates.

Voting

Holders of shares of Preferred Stock shall have no voting rights with respect to such shares of Preferred Stock except as from time to time required by law. Holders of shares of Preferred Stock shall vote as a single class with respect to amendments to the Certificate of Designations applicable to all shares of Preferred Stock upon the vote or written consent of the holders of a majority of such shares of Preferred Stock then outstanding.

Change of Control

Upon certain change of control events involving the Company, the holders of shares of Preferred Stock will be entitled to receive in full, out of the assets of the Company or proceeds thereof available for distribution to stockholders, a sum in cash equal to (i) the Liquidation Preference of such share of Preferred Stock, plus (y) the accrued Return in respect of such share of Preferred Stock as of the applicable change of control purchase date.

Liquidation

In the event of any liquidation, bankruptcy, insolvency, dissolution or winding up of the affairs of the Company, whether voluntary or involuntary, or upon the occurrence of certain change of control events involving the Company, the holders of shares of Preferred Stock will be entitled to receive in full, out of the assets of the Company or proceeds thereof available for distribution to stockholders, and after satisfaction of all liabilities and obligations to creditors of the Company, before any distribution of such assets and/or proceeds is made to or set

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aside for the holders of any other junior securities, a sum in cash equal to (i) the Liquidation Preference of such share of Preferred Stock, plus (y) the accrued Return in respect of such share of Preferred Stock as of the applicable change of control purchase date.

Registration

Pursuant to the Subscription Agreements, holders of the shares of Preferred Stock have the right to demand registration of the Preferred Stock Common Stock (including shares issuable upon exercise of any Pre-Funded Warrants); however, the holders of the shares of Preferred Stock have subsequently waived the right to demand registration of the Preferred Stock. Pursuant to the Waiver Agreements, the holders of all of the shares of Preferred Stock irrevocably and unconditionally waived the rights of such holders of shares of Preferred Stock to require us to register the shares of Common Stock issuable upon redemption of the Preferred Stock (including shares issuable upon exercise of any Pre-Funded Warrants) on a registration statement filed by the Company.

Preemption

Holders of shares of Preferred Stock shall not have any preemptive rights with respect to the Company's other securities.

No Sinking Fund

Shares of Preferred Stock shall not be subject to or entitled to the operation of a retirement or sinking fund.

Public Warrants

As of January 3, 2025, we had approximately 5.7 million Public Warrants issued and outstanding. Pursuant to the Warrant Agreement (as defined below), a holder of a Public Warrant may exercise its Public Warrants only for a whole number of shares of Common Stock. This means that only a whole Public Warrant may be exercised at any given time by a holder of a Public Warrant. No fractional Public Warrants were issued upon separation of the Units (as defined below) and only whole Public Warrants trade on NASDAQ. Each Public Warrant became exercisable on May 4, 2021 and will expire five years after the completion of the Business Combination, or earlier upon redemption. The shares of Common Stock issuable upon exercise of the Public Warrants have been registered under the Company's registration statement on Form S-1, as amended (File No. 333-251034), which was declared effective by the Securities and Exchange Commission on July 1, 2021 (the "Form S-1"), and, on April 1, 2022, a Company registration statement on Form S-3 (File Nos. 333-251034 and 333-257423) was declared effective by the Securities and Exchange Commission and serves as a post-effective amendment to the Form S-1 pursuant to Rule 429 under the Securities Act.

The outstanding Public Warrants may be called for redemption, in whole and not in part, at a price of \$0.01 per Warrant:

- at any time after the Public Warrants become exercisable;
- upon not less than 30 days' prior written notice of redemption to each Public Warrant holder;
- if, and only if, the reported last sale price of the shares of Common Stock equals or exceeds \$18.00 per share, for any 20 trading days within a 30-day trading period commencing after the Public Warrants become exercisable and ending on the third business day prior to the notice of redemption to Public Warrant holders; and
- if, and only if, there is a current registration statement in effect with respect to the shares of Common Stock underlying such Public Warrants at the time of redemption and for the entire 30-day trading period referred to above and continuing each day thereafter until the date of redemption.

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The right to exercise will be forfeited unless the Public Warrants are exercised prior to the date specified in the notice of redemption. On and after the redemption date, a record holder of a Public Warrant will have no further rights except to receive the redemption price for such holder's Public Warrant upon surrender of such Public Warrant.

The redemption criteria for the Public Warrants have been established at a price which is intended to provide Public Warrant holders a reasonable premium to the initial exercise price and provide a sufficient differential between the then-prevailing share price and the Public Warrant exercise price so that if the share price declines as a result of a redemption call, the redemption will not cause the share price to drop below the exercise price of the Public Warrants.

If the Public Warrants are called for redemption as described above, management will have the option to require all holders that wish to exercise Public Warrants to do so on a "cashless basis." In such event, each holder would pay the exercise price by surrendering the Public Warrants for that number of shares of Common Stock equal to the quotient obtained by dividing (x) the product of the number of shares of Common Stock underlying the Public Warrants, multiplied by the difference between the exercise price of the Public Warrants and the "fair market value" (defined below) by (y) the fair market value. The "fair market value" for this purpose shall mean the average reported last sale price of the Common Stock for the 10 trading days ending on the third trading day prior to the date on which the notice of redemption is sent to the holders of Public Warrants. Whether we will exercise our option to require all holders to exercise their Public Warrants on a "cashless basis" will depend on a variety of factors including the price of the Common Stock at the time the Public Warrants are called for redemption, ongoing cash needs at such time and concerns regarding dilutive share issuances.

The Public Warrants have been issued in registered form under a warrant agreement (the "Warrant Agreement") between Continental Stock Transfer & Trust Company, as warrant agent, and ROCH. The Warrant Agreement provides that the terms of the Public Warrants may be amended without the consent of any holder to cure any ambiguity or correct any defective provision, but requires the approval, by written consent or vote, of the holders of a majority of the then outstanding Public Warrants in order to make any change that adversely affects the interests of the registered holders.

The exercise price and number of shares of Common Stock issuable on exercise of the Public Warrants may be adjusted in certain circumstances including in the event of a share dividend, extraordinary dividend or recapitalization, reorganization, merger or consolidation. However, the Public Warrants will not be adjusted for issuances of shares of Common Stock at a price below the applicable exercise price.

The Public Warrants may be exercised upon surrender of the Public Warrant certificate on or prior to the expiration date at the offices of the warrant agent, with the exercise form on the reverse side of the Public Warrant certificate completed and executed as indicated, accompanied by full payment of the exercise price, by certified or official bank check, for the number of Public Warrants being exercised. The Public Warrant holders do not have the rights or privileges of holders of shares of Common Stock and any voting rights until they exercise their Public Warrants and receive shares of Common Stock. After the issuance of shares of Common Stock upon exercise of the Public Warrants, each holder will be entitled to one vote for each share held of record on all matters to be voted on by stockholders.

Public Warrant holders may elect to be subject to a restriction on the exercise of their Public Warrants such that an electing Public Warrant holder would not be able to exercise their Public Warrants to the extent that, after giving effect to such exercise, such holder would beneficially own in excess of 9.9% of the shares of Common Stock outstanding.

No fractional shares will be issued upon exercise of the Public Warrants. If, upon exercise of the Public Warrants, a holder would be entitled to receive a fractional interest in a share, upon exercise, the number of shares of Common Stock to be issued to the Warrant holder will be rounded down to the nearest whole number.

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Units

As of January 3, 2025, we had 55,827 units issued and outstanding (the “Units”). All Units outstanding reflect a unit consisting of one share of Common Stock and three-quarters of one redeemable Public Warrant to purchase Common Stock.

Dividends

We have not declared or paid any cash dividends on our Common Stock and do not presently intend to pay any cash dividends in the foreseeable future. The payment of dividends is subject to the discretion of the Company’s board of directors. Our board of directors bases its decisions regarding dividends on, among other things, general business conditions, our financial results, contractual, legal and regulatory restrictions regarding dividend payments and any other factors that the board may consider relevant.

Listing

Our Common Stock, Public Warrants and Units trade on NASDAQ under the symbols “PCT,” “PCTTW” and “PCTTU,” respectively.

Annual Stockholder Meetings

The Second Amended and Restated Bylaws provide that annual stockholder meetings will be held wholly or partially by means of remote communication or at such place, within or without the State of Delaware, on such date and at such time as may be determined by the Company’s board of directors, the Chief Executive Officer of the Company (the “Chief Executive Officer”) or the chairman of the board of directors of the Company (the “Chairman”) and as will be designated in the notice of the annual meeting.

Anti-Takeover Effects of the Company’s Amended and Restated Certificate of Incorporation and Second Amended and Restated Bylaws and Certain Provisions of Delaware Law

The Amended and Restated Certificate of Incorporation, Certificate of Designations and the Second Amended and Restated Bylaws contain and the DGCL contains provisions, which are summarized in the following paragraphs, that are intended to enhance the likelihood of continuity and stability in the composition of the Company’s board of directors. These provisions are intended to avoid costly takeover battles, reduce the Company’s vulnerability to a hostile change of control and enhance the ability of the Company’s board of directors to maximize stockholder value in connection with any unsolicited offer to acquire the Company. However, these provisions may have an anti-takeover effect and may delay, deter or prevent a merger or acquisition of the Company by means of a tender offer, a proxy contest or other takeover attempt that a stockholder might consider in its best interest, including those attempts that might result in a premium over the prevailing market price for the shares of the Common Stock held by stockholders.

Authorized but Unissued Capital Stock

Delaware law does not require stockholder approval for any issuance of authorized shares. However, the listing requirements of NASDAQ, which would apply if and so long as the Common Stock remains listed on NASDAQ, require stockholder approval of certain issuances equal to or exceeding 20% of the then outstanding voting power or then outstanding number of shares of Common Stock. Additional shares that may be used in the future may be issued for a variety of corporate purposes, including future public offerings, to raise additional capital or to facilitate acquisitions.

The Company’s board of directors may generally issue preferred stock on terms calculated to discourage, delay or prevent a change of control of the Company or the removal of the Company’s management. Moreover, the

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Company's authorized but unissued shares of preferred stock will be available for future issuances without stockholder approval and could be utilized for a variety of corporate purposes, including future offerings to raise additional capital, to facilitate acquisitions and employee benefit plans.

One of the effects of the existence of unissued and unreserved Common Stock or preferred stock may be to enable the Company's board of directors to issue shares to persons friendly to current management, which issuance could render more difficult or discourage an attempt to obtain control of the Company by means of a merger, tender offer, proxy contest or otherwise, and thereby protect the continuity of the Company's management and possibly deprive the Company's stockholders of opportunities to sell their shares of the Common Stock at prices higher than prevailing market prices.

Removal of Directors; Vacancies

Subject to the rights, if any, of the holders of any series of preferred stock to elect additional directors under circumstances specified in a Preferred Stock Designation, newly created directorships resulting from any increase in the number of directors and any vacancies on the Board resulting from death, disability, resignation, disqualification, removal, or other cause will be filled solely by the affirmative vote of a majority of the remaining directors then in office, even though less than a quorum of the Board, or by a sole remaining director.

Subject to the rights, if any, of the holders of any series of preferred stock to elect additional directors under circumstances specified in a Preferred Stock Designation, any director may be removed from office by the stockholders at any time, with or without cause and, in either case. At any annual meeting or special meeting of the stockholders, the notice of which states that the removal of a director or directors is among the purposes of the meeting and identifies the director or directors proposed to be removed, the affirmative vote of the holders of a majority of the voting power of the outstanding Voting Stock, voting together as a single class, may remove such director or directors. "Voting Stock" means stock of the Company of any class or series entitled to vote generally in the election of directors.

Special Stockholder Meetings

Subject to the rights of the holders of any future series of preferred stock, special meetings of stockholders may be called only (i) by the Chairman, (ii) by the Chief Executive Officer, or (iii) by the Secretary of the Company (the "Secretary") acting at the request of the Chairman, the Chief Executive Officer or a majority of the total number of directors that the Company would have if there were no vacancies on its board of directors. At any annual meeting or special meeting of stockholders, only such business will be conducted or considered as has been brought before such meeting in the manner provided in the Second Amended and Restated Bylaws.

Requirements for Advance Notification of Director Nominations and Stockholder Proposals

The Second Amended and Restated Bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors. In order for any matter to be properly brought before a meeting, a stockholder will have to comply with advance notice requirements and provide the Company with certain information. Generally, to be timely, a stockholder's notice relating to any nomination or other business to be brought before an annual meeting must be delivered to the Secretary at the Company's principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary date of the immediately preceding annual meeting of stockholders. Notwithstanding the foregoing, in the event that the number of directors to be elected to the board of directors at the annual meeting is increased effective after the time period for which nominations would otherwise be due and there is no public announcement by the Company naming the nominees for the additional directorships at least 100 days prior to the first anniversary of the preceding year's annual meeting, a stockholder's notice will also be considered timely, but only with respect to nominees for the additional directorships, if it will be delivered to the Secretary at the principal executive offices

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of the Company not later than the close of business on the 10th day following the day on which such public announcement is first made by the Company.

To be timely, a stockholder's notice relating to the nomination of a director to the Company's board of directors to be brought before a special meeting, if permitted, will be delivered to the Secretary at the principal executive offices of the Company not earlier than the close of business on the 120th day prior to such special meeting and not later than the close of business on the later of the 90th day prior to such special meeting or the 10th day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the board of directors to be elected at such meeting. The Second Amended and Restated Bylaws also specify requirements as to the form and content of a stockholder's notice. Notwithstanding the foregoing notice requirements, the notice requirements will not apply to director nominations pursuant the Pure Crown Side Letter (as defined in the Second Amended and Restated Bylaws).

These notice provisions may defer, delay or discourage a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to influence or obtain control of the Company.

Consent of Stockholders in Lieu of Meeting

Subject to the rights of the holders of any series of preferred stock, any action required or permitted to be taken by the stockholders may be taken only at a duly called annual or special meeting of stockholders and may not be taken without a meeting by means of any consent in writing of such stockholder.

Dissenters' Rights of Appraisal and Payment

Under the DGCL, with certain exceptions, the Company's stockholders will have appraisal rights in connection with a merger or consolidation of the Company. Pursuant to the DGCL, stockholders who properly request and perfect appraisal rights in connection with such merger or consolidation will have the right to receive payment of the fair value of their shares as determined by the Delaware Court of Chancery.

Stockholders' Derivative Actions

Under the DGCL, any of the Company's stockholders may bring an action in the Company's name to procure a judgment in the Company's favor, also known as a derivative action, provided that the stockholder bringing the action is a holder of the Company's shares at the time of the transaction to which the action relates or such stockholder's stock thereafter devolved by operation of law.

Amendment of the Amended and Restated Certificate of Incorporation

The Amended and Restated Certificate of Incorporation provides that the Company reserves the right at any time from time to time to amend, alter, change or repeal any provision contained in the Amended and Restated Certificate of Incorporation. Notwithstanding any inconsistent provision of the Amended and Restated Certificate of Incorporation or any provision of law that might otherwise permit a lesser vote or no vote, but in addition to any affirmative vote of the holders of any series of preferred stock required by law, (a) until the date (the "Sunset Date") of the first annual meeting of the stockholders that is held after March 17, 2026, the affirmative vote of the holders of at least 66 2/3% of the voting power, and (b) following the Sunset Date, the affirmative vote of the holders of a majority of the voting power, in the case of each of (a) and (b), of the outstanding capital stock entitled to vote, voting together as a single class, will be required to amend, alter, change or repeal, or adopt any provision inconsistent with, certain provisions, as noted in the Amended and Restated Certificate of Incorporation, or the definition of any capitalized terms used therein or any successor provision.

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Amendment of the Second Amended and Restated Bylaws

The Second Amended and Restated Bylaws may be amended in any respect or repealed at any time, either (a) at any meeting of stockholders, provided that any amendment or supplement proposed to be acted upon at any such meeting has been properly described or referred to in the notice of such meeting, or (b) by the Board, provided that no amendment adopted by the Board may vary or conflict with any amendment adopted by the stockholders in accordance with the Amended and Restated Certificate of Incorporation and the Second Amended and Restated Bylaws. Notwithstanding the foregoing and anything contained in the Second Amended and Restated Bylaws, certain provisions of the Second Amended and Restated Bylaws may not be amended or repealed by the stockholders, and no provision inconsistent therewith may be adopted by the stockholders, without (a) until the Sunset Date, the affirmative vote of the holders of at least 66 2/3% of the Company's outstanding capital stock entitled to vote, voting together as a single class, and (b) following the Sunset Date, the affirmative vote of the holders of a majority of the Company's outstanding capital stock entitled to vote, voting together as a single class.

Exclusive Forum Selection

The Amended and Restated Certificate of Incorporation provides that, unless the Company consents in writing to the selection of an alternative forum, (a) the Court of Chancery (the "Chancery Court") of the State of Delaware (or, in the event that the Chancery Court does not have jurisdiction, the federal district court for the District of Delaware) will, to the fullest extent permitted by law, be the sole and exclusive forum for (i) any derivative action, suit or proceeding brought on behalf of the Company, (ii) any action, suit or proceeding asserting a claim of breach of a fiduciary duty owed by any director, officer, employee or stockholder of the Company to the Company or to the Company's stockholders, (iii) any action, suit or proceeding arising pursuant to any provision of the DGCL or the Second Amended and Restated Bylaws or the Amended and Restated Certificate of Incorporation (as either may be amended and/or restated from time to time) or as to which the DGCL confers jurisdiction on the Chancery Court, or (iv) any action, suit or proceeding asserting a claim against the Company governed by the internal affairs doctrine; and (b) subject to the preceding provisions, the federal district courts of the United States will be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act or the Exchange Act. If any action the subject matter of which is within the scope of clause (a) of the immediately preceding sentence is filed in a court other than the courts in the State of Delaware (a "Foreign Action") in the name of any stockholder, such stockholder will be deemed to have consented to (1) the personal jurisdiction of the state and federal courts in the State of Delaware in connection with any action brought in any such court to enforce the provisions of clause (a) of the immediately preceding sentence and (2) having service of process made upon such stockholder in any such action by service upon such stockholder's counsel in the Foreign Action as agent for such stockholder. Any person or entity purchasing or otherwise acquiring or holding any interest in any security of the Company will be deemed to have notice of and consented to such provisions of the Amended and Restated Certificate of Incorporation. Notwithstanding the foregoing, the exclusive forum provision will not apply to suits brought to enforce any liability or duty created by the Securities Act the Exchange Act, or any other claim for which the federal courts of the United States have exclusive jurisdiction. Unless the Company consents in writing to the selection of an alternative forum, the federal district courts of the United States of America shall, to the fullest extent permitted by applicable law, be the sole and exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act.

Limitations on Liability and Indemnification of Officers and Directors

The DGCL authorizes corporations to limit or eliminate the personal liability of directors and certain officers to corporations and their stockholders for monetary damages for breaches of directors' fiduciary duties, subject to certain exceptions. The Amended and Restated Certificate of Incorporation includes a provision that eliminates the personal liability of directors for monetary damages for any breach of fiduciary duty as a director, except to the extent such exemption from liability or limitation thereof is not permitted under the DGCL. The

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effect of these provisions is to eliminate the rights of the Company and its stockholders, through stockholders' derivative suits on the Company's behalf, to recover monetary damages from a director for breach of fiduciary duty as a director, including breaches resulting from grossly negligent behavior. However, exculpation does not apply to any director for any breach of the director's duty of loyalty to the Company or its stockholders, or if the director has acted in bad faith, knowingly or intentionally violated the law, authorized illegal dividends or redemptions or derived an improper benefit from his or her actions as a director.

The Amended and Restated Certificate of Incorporation provides that the Company must indemnify and advance expenses to the Company's directors and officers to the fullest extent authorized by the DGCL. The Company also is expressly authorized to maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Company or another corporation, partnership, joint venture, trust or other enterprise against any expense, liability or loss, whether or not the Company would have the power to indemnify such person against such expense, liability or loss under the DGCL. The Company believes that these indemnification and advancement provisions and insurance are useful to attract and retain qualified directors and executive officers.

The limitation of liability, advancement and indemnification provisions in the Amended and Restated Certificate of Incorporation may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duty. These provisions also may have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit the Company and its stockholders. In addition, your investment may be adversely affected to the extent the Company pays the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

PRIVATE PLACEMENT OF RTI WARRANTS, SHARES OF COMMON STOCK, SERIES C WARRANTS AND PREFERRED STOCK

RTI Warrants

On June 29, 2018, the PCT LLC board of directors approved the issuance of the Legacy RTI Warrants to Resin Technology, Inc. under the terms of the Professional Services Agreement to purchase an aggregate of 143,619 PCT LLC Class C Units at an aggregated exercise price of \$37.605 per unit. The Legacy RTI Warrants vested immediately upon issuance and originally were set to expire on June 29, 2023 or upon a change in control event, as such term is defined in the Legacy RTI Warrant Agreement. The RTI Warrants were then later assigned to Recycled Resin Investors, LLC in October 2020. In connection with the Business Combination, on November 20, 2020, the Legacy RTI Warrant Agreement was modified such that the Legacy RTI Warrants (i) became exercisable for 1,510,943 shares of Common Stock instead of PCT LLC Class C Units, (ii) became exercisable on the closing of the Business Combination, (iii) expire on December 31, 2024 and (iv) are exercisable at \$3.57 per RTI Warrant Common Share. On December 27, 2024, the Legacy RTI Warrant Agreement was modified such that the Legacy RTI Warrants expire on January 17, 2025.

The issuance and sale of the RTI Warrants pursuant to the Professional Services Agreement and the issuance and sale of the RTI Warrant Common Shares issuable upon exercise of the RTI Warrants were and will not be registered under the Securities Act, and were and will be offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act and Regulation D promulgated thereunder.

2024 Private Placement

On September 11, 2024, the Company entered into the Subscription Agreements with the Investors, pursuant to which the Company agreed to sell to the Investors, in the Private Placement, an aggregate of 8,528,786 shares of Common Stock, Series C Warrants to purchase an aggregate of 5,000,000 shares of Common Stock at a price of \$11.50 per share of Common Stock and one Series C Warrant, and 50,000 shares of Preferred Stock. The Private Placement closed on September 13, 2024.

The shares of Preferred Stock were issued pursuant to the Certificate of Designations filed on September 13, 2024 with the Secretary of State of the State of Delaware to establish the preferences, limitations and relative rights of the Preferred Stock. The Certificate of Designations amended our Restated Certificate of Incorporation, as amended, and was effective immediately on filing. Pursuant to the Certificate of Designations, the shares of Preferred Stock have a maturity date three years after the initial issue date and accrue a Return, payable quarterly in cash or in-kind at the election of the holder (subject to applicable withholding tax). The shares of Preferred Stock are subject to (i) a mandatory redemption upon the occurrence of certain triggering events related to the incurrence of additional indebtedness, (ii) a mandatory redemption on the Maturity Date and (iii) an optional redemption, at our election, at any time prior to the Maturity Date. Each share of Preferred Stock is redeemable for (i) cash in the amount of the Initial Issue Price, (ii) a number of shares of Common Stock equal to the Initial Issue Price divided by \$4.69, or (iii) a combination of cash and shares of Common Stock, in each case including accrued but unpaid Return to the redemption date and after multiplying the number of shares of Preferred Stock by 1.05. If the holder elects upon redemption to receive Preferred Stock Common Stock and such holder's beneficial ownership would exceed the Stock Issuance Cap, then in lieu of such shares, the holder will receive a number of Pre-Funded Warrants exercisable for an equivalent number of Preferred Stock Common Stock. The Pre-Funded Warrants will expire seven years after issuance and will be immediately exercisable by the holder for shares of Common Stock, provided that such exercise does not cause such holder's beneficial ownership to exceed the Stock Issuance Cap. Upon (i) any liquidation, bankruptcy, insolvency, dissolution or winding up of the affairs of the Company or (ii) certain exit events, the holders of Preferred Stock shall be entitled to receive an amount per share of Preferred Stock equal to 1.05 multiplied by the original issue price of the Preferred Stock.

On September 17, 2024, the holders of all of the shares of Preferred Stock entered into the Waiver Agreements to irrevocably and unconditionally waive (and consent to such waivers for purposes of Section 12 of the Certificate of Designations) the rights of the holders of the shares of Preferred Stock, (i) pursuant to the

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Certificate of Designations, (a) to elect to receive shares of Common Stock or Pre-Funded Warrants in connection with redemption events under the Certificate of Designations, (b) to elect to receive additional shares of Preferred Stock on Return payment dates, and (c) to receive Return payments on the first three quarterly Return payment dates within each one-year period following the issue date and to instead receive such Return payments on the fourth quarterly Return payment date within each one-year period following the issue date (subject to applicable withholding tax), such that each holder of Preferred Stock shall receive Return payments for the entire one-year period preceding each such fourth quarterly Return payment date, and (ii) pursuant to the Subscription Agreements, to require us to register the shares of Common Stock issuable upon redemption of the Preferred Stock on a registration statement filed by the Company.

The Series C Warrants have an exercise price of \$11.50 per share, were exercisable beginning on the date of issuance (subject to the beneficial ownership of a holder, including its affiliates, not exceeding the Stock Issuance Cap upon exercise), will expire on December 1, 2030 and are redeemable at a price of \$0.01 per Series C Warrant if the last sales price of the Common Stock has been equal to or greater than \$22.00 per share (subject to adjustment for splits, dividends, recapitalizations and other similar events) for any twenty (20) trading days within a thirty (30) trading day period.

The issuance and sale of the shares of Common Stock, Series C Warrants and Preferred Stock pursuant to the Subscription Agreements, the issuance and sale of the Series C Warrant Common Shares issuable upon exercise of the Series C Warrants were and will not be registered under the Securities Act, and were and will be offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act and Regulation D promulgated thereunder.

One of the reasons we are filing the registration statement of which this prospectus forms a part is to satisfy our obligations under the Subscription Agreements.

CERTAIN MATERIAL UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS

The following is a general discussion of certain material U.S. federal income tax considerations with respect to the ownership and disposition of the Common Shares.

This discussion is based upon the Code, existing and proposed Treasury Regulations promulgated thereunder, and published administrative rulings and judicial decisions, all as in effect as of the date of this prospectus. These laws are subject to change and to differing interpretation, possibly with retroactive effect. Any change or differing interpretation could alter the tax consequences described in this prospectus. We assume in this discussion that you hold the Common Shares as capital assets within the meaning of Section 1221 of the Code. This discussion does not address all aspects of U.S. federal income taxation that may be relevant to you in light of your individual circumstances, nor does it address any aspects of U.S. state, local, non-income, or non-U.S. taxes.

This discussion also does not address the special tax rules applicable to particular holders, such as:

- tax-exempt organizations or governmental organizations;
- real estate investment trusts;
- regulated investment companies;
- qualified foreign pension funds (or entities wholly owned by one or more qualified foreign pension funds);
- pass-through entities such as partnerships, S corporations, disregarded entities for U.S. federal income tax purposes and limited liability companies treated as such for U.S. federal income tax purposes (and investors therein);
- financial institutions;
- brokers, dealers, or traders in securities;
- insurance companies;
- persons that hold the Common Shares as part of a hedging or conversion transaction or as part of a short-sale, wash sale, synthetic security, or straddle;
- U.S. holders that have a functional currency other than the U.S. dollar;
- persons that actually or constructively own five percent or more of the Company voting shares or five percent or more of the total value of all classes of shares of the Company capital stock;
- taxpayers that are subject to the mark-to-market accounting rules;
- controlled foreign corporations;
- passive foreign investment companies;
- companies that accumulate earnings to avoid U.S. federal income tax; and
- certain expatriates and former citizens or long-term residents of the United States.

If a partnership (or an entity or arrangement classified as a partnership for U.S. federal income tax purposes) holds the Common Shares, the tax treatment of a partner in such partnership will generally depend on the status of the partner and the activities of the partnership. If you are a partner or partnership holding the Common Shares, you should consult your tax advisor regarding the tax consequences of the purchase, ownership and disposition of the Common Shares.

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There can be no assurance that the Internal Revenue Service (the “IRS”) will not challenge one or more of the tax consequences described herein, and we have not obtained, nor do we intend to obtain, a ruling from the IRS with respect to the U.S. federal income tax consequences of the purchase, ownership or disposition of the Common Shares.

YOU SHOULD CONSULT YOUR TAX ADVISOR WITH RESPECT TO THE U.S. FEDERAL, STATE, LOCAL AND NON-U.S. INCOME AND OTHER TAX CONSEQUENCES OF THE OWNERSHIP AND DISPOSITION OF THE COMMON SHARES.

U.S. Holders

The discussion in this section is addressed to a holder of the Common Shares that is a U.S. holder for U.S. federal income tax purposes. In general, a U.S. holder means a beneficial owner of the Common Shares (other than a partnership or an entity or arrangement treated as a partnership for U.S. federal income tax purposes) that, for U.S. federal income tax purposes, is:

- an individual citizen or resident of the United States;
- a corporation created or organized in the United States or under the laws of the United States or of any state thereof or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust if (1) a U.S. court can exercise primary supervision over the trust’s administration and one or more U.S. persons have the authority to control all of the trust’s substantial decisions or (2) the trust has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a U.S. person.

Distributions on the Common Shares

Distributions, if any, on the Common Shares will generally constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated first as reducing the adjusted basis in your Common Shares, as the case may be, and, to the extent such excess exceeds such adjusted basis, as capital gain from the sale or exchange of such Common Shares, as applicable.

Dividends received by individual U.S. holders of the Common Shares will be subject to a reduced maximum tax rate of 20%, if such dividends are treated as “qualified dividend income” for U.S. federal income tax purposes and certain holding period requirements are met. Further, dividends recognized by individual U.S. holders could be subject to the 3.8% tax on net investment income.

Dividends received by corporate U.S. holders generally will be eligible for the dividends-received deduction. If a corporate U.S. holder receives a dividend on the Common Shares that is an “extraordinary dividend” within the meaning of Section 1059 of the Code, in certain instances the corporate U.S. holder must reduce its basis in the Common Shares by the amount of the “nontaxed portion” of such “extraordinary dividend” that results from the application of the dividends-received deduction. If the “nontaxed portion” of such “extraordinary dividend” exceeds such corporate U.S. holder’s basis, any excess will be taxed as gain as if such U.S. holder had disposed of its shares in the year the “extraordinary dividend” is paid.

Gain on Sale, Exchange or Other Taxable Disposition of the Common Shares

Upon any sale, exchange, redemption or other disposition of the Common Shares, a U.S. holder will recognize capital gain or loss equal to the difference between the amount realized and the adjusted tax basis in such Common Shares. Such capital gain or loss will be long-term capital gain or loss if your holding period for

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the Common Shares is longer than one year. The deductibility of capital losses is subject to limitations. You are urged to consult your tax advisor with respect to applicable tax rates and netting rules for capital gains and losses. Further, gains recognized by individual U.S. holders could be subject to the 3.8% tax on net investment income.

Backup Withholding and Information Reporting

In general, information reporting requirements will apply to payments of dividends on, and the proceeds of the sale of, the Common Stock. Backup withholding may apply to such payments if a U.S. holder fails to comply with certain identification requirements, which generally may be satisfied by a U.S. holder providing a valid Form W-9. Backup withholding is currently imposed at a rate of 24%. We are required to determine the date and amount of any deemed distributions.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to you may be allowed as a credit against your U.S. federal income tax liability, if any, and may entitle you to a refund, provided that the required information is timely furnished to the IRS.

Non-U.S. Holders

The discussion in this section is addressed to a holder of the Common Shares that is a non-U.S. holder for U.S. federal income tax purposes. A non-U.S. holder generally means a beneficial owner of the Common Shares that is not a U.S. holder.

Distributions on the Common Shares

Dividends paid to a non-U.S. holder will generally be subject to withholding of U.S. federal income tax at a rate of 30% or such lower rate as may be specified by an applicable income tax treaty between the United States and the non-U.S. holder's country of residence. Dividends that are treated as effectively connected with the non-U.S. holder's conduct of a trade or business within the United States and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States, are generally exempt from the 30% withholding tax if the holder satisfies applicable certification and disclosure requirements, including completing IRS Form W-8ECI (or other applicable form). However, such U.S. effectively connected income, net of specified deductions and credits, is taxed at the same graduated U.S. federal income tax rates applicable to U.S. persons. In addition, any such effectively connected dividends received by a foreign corporation may be subject to an additional "branch profits tax" at a 30% rate or such lower rate as may be specified by an applicable income tax treaty.

A non-U.S. holder who claims the benefit of an applicable income tax treaty between the United States and the non-U.S. holder's country of residence will generally be required to provide a properly executed IRS Form W-8BEN or Form W-8BEN-E (or successor form), as applicable. You are urged to consult your tax advisor regarding your entitlement to benefits under a relevant income tax treaty. If you are eligible for a reduced rate of U.S. withholding tax under an income tax treaty, you may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

Gain on Sale, Exchange or Other Taxable Disposition of the Common Shares

A non-U.S. holder will generally not be subject to U.S. federal income tax or withholding tax on any gain realized upon a sale, exchange or other taxable disposition of the Common Shares unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business within the United States and, if an applicable income tax treaty so provides, is attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder in the United States, in which case, the non-U.S. holder will generally be taxed on a net income basis at the graduated U.S. federal income tax rates applicable to U.S. persons;

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- the non-U.S. holder is an individual that is present in the United States for 183 days or more in the taxable year of the disposition and certain other conditions are met, in which case, the non-U.S. holder will generally be subject to a 30% tax on the net gain derived from the disposition, which may be offset by U.S. source capital losses realized during the same taxable year, if any; or
- we are, or have been within the five years preceding the non-U.S. holder's disposition of the Common Shares, a "United States real property holding corporation" as defined in the Code.

We believe that we are not currently and will not become a "United States real property holding corporation." However, no assurance can be given that we are not or will not become a "United States real property holding corporation" in the future, because the determination of whether we are a "United States real property holding corporation" depends on the fair market value of our United States real property interests relative to the fair market value of our other business assets. In general, gain on the sale or other disposition of stock of a "United States real property holding corporation" that is "regularly traded" on an established securities market will be subject to U.S. federal income tax only in the case of a non-U.S. holder that owns more than 5% of the total fair market value of that class of stock at any time during the five-year period ending on the date of disposition. If a non-U.S. holder is subject to U.S. federal income tax pursuant to these rules, any gains on the sale or other disposition of such stock would be taxed on a net income basis at the graduated rates applicable to U.S. persons, and such non-U.S. holder would be required to file a U.S. federal income tax return with respect to such gains.

Gain recognized on a sale or other disposition of the Common Shares would be subject to U.S. federal income tax only in the case of a non-U.S. holder that owns more than 5% of the Common Shares, provided the Common Stock continues to be regularly traded on an established securities market. In the event a non-U.S. holder is subject to U.S. tax on a sale or other disposition of the Common Shares under these rules, such non-U.S. holder may be subject to a 15% withholding tax on such sale or other disposition of the Common Shares.

Non-U.S. holders that may be treated as actually or constructively owning more than 5% of the Common Shares should consult their tax advisors with respect to the U.S. federal income tax consequences of the ownership and disposition of the Common Shares.

Backup Withholding and Information Reporting

We must report annually to the IRS and to each non-U.S. holder the gross amount of the dividends on the Common Shares paid to such non-U.S. holder and the tax withheld, if any, with respect to such dividends. A non-U.S. holder will have to comply with specific certification procedures to establish that it is not a U.S. person, as defined for U.S. federal income tax purposes, in order to avoid backup withholding at the applicable rate with respect to dividends on the Common Shares and certain other types of payments. The certification procedure required to claim a reduced rate of withholding under an income tax treaty will satisfy the certification requirements necessary to avoid backup withholding as well.

Information reporting and backup withholding will generally apply to the proceeds of a non-U.S. holder's disposition of the Common Shares effected by or through the U.S. office of any broker, U.S. or non-U.S., unless the non-U.S. holder certifies its status as a non-U.S. holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, dispositions effected through a non-U.S. office of a broker deriving more than a specified percentage of its income from U.S. sources or having certain other connections to the United States will generally be subject to information reporting, unless you certify your status as a non-U.S. holder and satisfy certain other requirements, or otherwise establish an exemption. You should consult your tax advisor regarding the application of the information reporting and backup withholding rules to you. Copies of information returns may be made available to the tax authorities of the country in which you reside or are incorporated under the provisions of a specific treaty or agreement.

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Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to you may be allowed as a credit against your U.S. federal income tax liability, if any, and may entitle you to a refund, provided that the required information is timely furnished to the IRS.

Foreign Account Tax Compliance Act ("FATCA")

FATCA imposes withholding taxes on certain types of payments made to "foreign financial institutions" and certain other non-U.S. entities. The act imposes a 30% withholding tax on dividends on the Common Shares paid to a foreign financial institution or to a non-financial foreign entity, unless (1) the foreign financial institution undertakes certain diligence and reporting obligations or (2) the non-financial foreign entity either certifies it does not have any substantial U.S. owners or furnishes identifying information regarding each substantial U.S. owner. In addition, if the payee is a foreign financial institution, it must enter into an agreement with the U.S. Treasury requiring, among other things, that it undertake to identify accounts held by certain U.S. persons or U.S.-owned foreign entities, annually report certain information about such accounts and withhold 30% on payments to account holders whose actions prevent it from complying with these reporting and other requirements. Under certain circumstances, you may be eligible for refunds or credits of such taxes. You should consult your tax advisor regarding these requirements.

SELLING STOCKHOLDERS

This prospectus relates to the offer and sale, on a resale basis, by the Selling Stockholders or their permitted transferees from time to time of up to 15,039,729 Common Shares, consisting of (i) 8,528,786 Private Placement Common Shares, (ii) 5,000,000 Series C Warrant Common Shares and (iii) 1,510,943 RTI Warrant Common Shares.

Except as indicated by the footnotes below, the Selling Stockholders may from time to time offer and sell any or all of the Common Shares set forth below pursuant to this prospectus and any accompanying prospectus supplement. When we refer to the “Selling Stockholders” in this prospectus, we mean the persons listed in the table below, and the pledgees, donees, transferees, assignees, successors, designees and others who later come to hold any of the Selling Stockholders’ interest in the Common Shares other than through a public sale. Except as otherwise described below and for the ownership of the shares of our Common Stock, the Selling Stockholders have not had any material relationship with us within the past three years.

The following table sets forth, as of January 3, 2025, the names of the Selling Stockholders, the aggregate number of shares of Common Stock beneficially owned, the aggregate number of Common Shares that the Selling Stockholders may offer pursuant to this prospectus and the number of shares of Common Stock beneficially owned by the Selling Stockholders after the sale of the securities offered hereby. For purposes of the following table, we have assumed that the Selling Stockholders will have sold all of the securities covered by this prospectus upon the completion of the offering and that, as a result of the Waiver Agreements, the Preferred Stock will not convert into or be redeemed for Common Stock. We have based percentage ownership on 173,566,180 shares of Common Stock outstanding as of January 3, 2025.

We have determined beneficial ownership in accordance with the rules of the SEC. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the Selling Stockholders have sole voting and investment power with respect to all shares of Common Stock that they beneficially own, subject to applicable community property laws. Except as otherwise described below, based on the information provided to us by the selling securityholders, no Selling Stockholder is a broker-dealer or an affiliate of a broker dealer.

Selling Stockholder information for each additional Selling Stockholder, if any, will be set forth by prospectus supplement to the extent required prior to the time of any offer or sale of such Selling Stockholder’s shares pursuant to this prospectus. Any prospectus supplement may add, update, substitute, or change the information contained in this prospectus, including the identity of each Selling Stockholder and the number of shares registered on its behalf. A Selling Stockholder may sell or otherwise transfer all, some or none of such shares in this offering.

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Please see the section titled “Plan of Distribution” for further information regarding the Selling Stockholder’s method of distributing these shares.

Name of Selling Stockholder	Number of Shares of Common Stock Beneficially Owned Prior to Offering	Maximum Number of Shares of Common Stock to be Sold Pursuant to this Prospectus	Number of Shares of Common Stock Beneficially Owned After Offering	Percent of Common Stock Beneficially Owned After Offering
Sylebra Capital Menlo Master Fund ⁽¹⁾⁽²⁾	2,244,645	332,211 ⁽³⁾	1,912,434	1.10%
Sylebra Capital Parc Master Fund ⁽¹⁾⁽⁴⁾	7,928,933	1,492,986 ⁽⁵⁾	6,435,947	3.71%
Sylebra Capital Partners Master Fund, Ltd. ⁽¹⁾⁽⁶⁾	19,582,460	4,137,656 ⁽⁷⁾	15,444,804	8.90%
Blackwell Partners LLC – Series A ⁽¹⁾⁽⁸⁾	3,701,611	801,540 ⁽⁹⁾	2,900,071	1.67%
Samlyn Offshore Master Fund, Ltd. ⁽¹⁰⁾	4,946,655	2,801,645	2,145,010	1.24%
Samlyn Onshore Fund, LP ⁽¹¹⁾	2,185,675	1,252,834	932,841	*
Samlyn Net Neutral Master Fund, Ltd. ⁽¹²⁾	4,261,799	2,709,914	1,551,885	*
Recycled Resin Investors, LLC ⁽¹³⁾	1,510,943	1,510,943	—	*

* less than 1%

- (1) The reported securities may be deemed to be indirectly beneficially owned by Sylebra Capital LLC (“Sylebra Capital”), as an investment sub-advisor of Sylebra Capital Menlo Master Fund, Sylebra Capital Parc Master Fund, Sylebra Capital Partners Master Fund, Ltd., and Blackwell Partners LLC – Series A (collectively, the “Sylebra Selling Stockholders”). The reported securities may also be deemed to be indirectly beneficially owned by Daniel Patrick Gibson as the principal of Sylebra Capital. Sylebra Capital and Mr. Gibson may also be deemed to indirectly beneficially own shares of Common Stock issuable upon exercise of the Series A Warrants of the Company (the “Series A Warrants”) or issuable upon conversion of the Company’s 7.25% Green Convertible Notes due 2030 (the “Convertible Notes”) that may be beneficially owned by the Sylebra Selling Stockholders. Pursuant to the terms of the Series A Warrants, Series C Warrants and the Indenture, dated August 24, 2023, governing the Convertible Notes, the Sylebra Selling Stockholders may not exercise or convert, as applicable, such securities unless such exercise or conversion would not result in the beneficial ownership of Mr. Gibson, Sylebra Capital and/or their respective affiliates exceeding the Stock Issuance Cap. Sylebra Capital and Mr. Gibson disclaim beneficial ownership of the reported securities except to the extent of their respective pecuniary interests therein, and this disclosure shall not be deemed an admission that either of them are the beneficial owners of the securities for purposes of Section 16 of the Exchange Act, or for any other purpose. The address of the Sylebra Selling Stockholders is c/o Sylebra Capital LLC, 3000 El Camino Real, Building 5, Suite 450, Palo Alto, CA 94306.
- (2) The reported securities are directly owned by Sylebra Capital Menlo Master Fund and exclude shares of Common Stock issuable upon exercise or conversion of derivative securities that may not be exercised pursuant to the Stock Issuance Cap, including (i) 122,779 Class C Warrant Common Shares, (ii) 718,900 shares of Common Stock issuable upon exercise of Series A Warrants held by the beneficial owner, and (iii) 337,382 shares of Common Stock issuable upon conversion of the Convertible Notes held by the beneficial owner.

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- (3) Consists of 209,432 Private Placement Common Shares and up to 122,779 Class C Warrant Common Shares to be sold pursuant to this prospectus, subject to the exercise of the Series C Warrants held by such selling stockholder not resulting in the selling stockholder or its affiliates exceeding the Stock Issuance Cap.
- (4) The reported securities are directly owned by Sylebra Capital Parc Master Fund and exclude shares of Common Stock issuable upon exercise or conversion of derivative securities that may not be exercised pursuant to the Stock Issuance Cap, including (i) 551,781 Class C Warrant Common Shares, (ii) 1,289,950 shares of Common Stock issuable upon exercise of Series A Warrants held by the beneficial owner, and (iii) 742,240 shares of Common Stock issuable upon conversion of the Convertible Notes held by the beneficial owner.
- (5) Consists of 941,205 Private Placement Common Shares and up to 551,781 Class C Warrant Common Shares to be sold pursuant to this prospectus, subject to the exercise of the Series C Warrants held by such selling stockholder not resulting in the selling stockholder or its affiliates exceeding the Stock Issuance Cap.
- (6) The reported securities are directly owned by Sylebra Capital Partners Master Fund, Ltd. and excludes shares of Common Stock issuable upon exercise or conversion of derivative securities that may not be exercised pursuant to the Stock Issuance Cap, including (i) 1,529,205 Class C Warrant Common Shares, (ii) 2,967,965 shares of Common Stock issuable upon exercise of Series A Warrants held by the beneficial owner and (iii) 1,821,862 shares of Common Stock issuable upon conversion of the Convertible Notes held by the beneficial owner.
- (7) Consists of 2,608,451 Private Placement Common Shares and up to 1,529,205 Class C Warrant Common Shares to be sold pursuant to this prospectus, subject to the exercise of the Series C Warrants held by such selling stockholder not resulting in the selling stockholder or its affiliates exceeding the Stock Issuance Cap.
- (8) The reported securities are directly owned by Blackwell Partners LLC – Series A and excludes shares of Common Stock issuable upon exercise or conversion of derivative securities that may not be exercised pursuant to the Stock Issuance Cap, including (i) 296,235 Class C Warrant Common Shares, (ii) 558,885 shares of Common Stock issuable upon exercise of Series A Warrants held by the beneficial owner, and (iii) 472,334 shares of Common Stock issuable upon conversion of the Convertible Notes held by the beneficial owner.
- (9) Consists of 505,305 Private Placement Common Shares and up to 296,235 Class C Warrant Common Shares to be sold pursuant to this prospectus, subject to the exercise of the Series C Warrants held by such selling stockholder not resulting in the selling stockholder or its affiliates exceeding the Stock Issuance Cap.
- (10) Consists of 1,766,206 Private Placement Common Shares and 1,035,439 Class C Warrant Common Shares to be sold pursuant to this prospectus. The number of shares of Common Stock beneficially held also includes 1,130,338 shares of Common Stock issuable upon exercise of Series A Warrants held by the beneficial owner and 456,470 shares of Common Stock issuable upon conversion of the Convertible Notes held by the beneficial owner. The reported securities are directly owned by Samlyn Offshore Master Fund, Ltd., and may be deemed to be indirectly beneficially owned by Samlyn Capital, LLC (“Samlyn Capital”), as the investment manager of Samlyn Offshore Master Fund. The reported securities may also be deemed to be indirectly beneficially owned by Robert Pohly as the principal of Samlyn Capital and Director of Samlyn Offshore Master Fund. Samlyn Capital and Robert Pohly disclaim beneficial ownership of the reported securities except to the extent of their respective pecuniary interests therein, and this report shall not be deemed an admission that either of them are the beneficial owners of the securities for purposes of Section 16 of the Exchange Act, or for any other purpose.
- (11) Consists of 789,809 Private Placement Common Shares and 463,025 Class C Warrant Common Shares to be sold pursuant to this prospectus. The number of shares of Common Stock beneficially held also includes 479,836 shares of Common Stock issuable upon exercise of Series A Warrants held by the beneficial owner and 204,162 shares of Common Stock issuable upon conversion of the Convertible Notes of the Company held by the beneficial owner. The reported securities are directly owned by Samlyn Onshore Fund, LP, and may be deemed to be indirectly beneficially owned by (i) Samlyn Capital, as the investment manager of Samlyn Onshore Fund, and (ii) Samlyn Partners, LLC (“Samlyn Partners”), as the general partner of Samlyn Onshore Fund. The reported securities may also be deemed to be indirectly beneficially owned by Robert Pohly as the principal of Samlyn Capital and Managing Member of Samlyn Partners. Samlyn Capital, Samlyn Partners and Robert Pohly disclaim beneficial ownership of the

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- reported securities except to the extent of their respective pecuniary interests therein, and this report shall not be deemed an admission that any of them are the beneficial owners of the securities for purposes of Section 16 of the Exchange Act or for any other purpose.
- (12) Consists of 1,708,378 Private Placement Common Shares, and 1,001,536 Class C Warrant Common Shares to be sold pursuant to this prospectus. The number of shares of Common Stock beneficially held also includes 1,061,777 shares of Common Stock issuable upon exercise of Series A Warrants held by the beneficial owner and 390,554 shares of Common Stock issuable upon conversion of the Convertible Notes held by the beneficial owner. The reported securities are directly owned by Samlyn Net Neutral Master Fund, Ltd., and may be deemed to be indirectly beneficially owned by Samlyn Capital, as the investment manager of Samlyn Net Neutral Master Fund. The reported securities may also be deemed to be indirectly beneficially owned by Robert Pohly as the principal of Samlyn Capital and Director of Samlyn Net Neutral Master Fund. Samlyn Capital and Robert Pohly disclaim beneficial ownership of the reported securities except to the extent of their respective pecuniary interests therein, and this report shall not be deemed an admission that either of them are the beneficial owners of the securities for purposes of Section 16 of the Exchange Act, or for any other purpose.
- (13) Consists of 1,510,943 RTI Warrant Common Shares to be sold pursuant to this prospectus held by Recycled Resin Investors, LLC. The RTI Warrants and RTI Warrant Common Shares issuable upon exercise of the RTI Warrants may be deemed to be indirectly beneficially owned by each of Garland Strong and William Bowie as members of Recycled Resin Investors LLC. Mr. Strong and Mr. Bowie may each be deemed to have shared voting and investment power with respect to the RTI Warrant Common Shares.

Material Relationships with Selling Stockholders

The description of our relationships with the selling stockholders and their affiliates set forth in “Certain Relationships and Related Party Transactions” in our Definitive Proxy Statement on Schedule 14A filed on March 28, 2024 is incorporated by reference herein.

In connection with the closing of the Business Combination, Recycled Resin Investors, LLC became a party to the Investor Rights Agreement, dated March 17, 2021, between PCT LLC and other parties (the “Investor Rights Agreement”). Pursuant to the Investor Rights Agreement, Recycled Resin Investors, LLC is subject to a lock-up that provides that, subject to certain limited exceptions, 33.33% of its RTI Warrant Common Shares may not be transferred until the Ironon Facility becomes operational, as certified by Leidos, an independent engineering firm.

PLAN OF DISTRIBUTION

We are registering the offer and sale, on a resale basis, by the Selling Stockholders or their permitted transferees of up to 15,039,729 Common Shares, consisting of (i) 8,528,786 Private Placement Common Shares, (ii) 5,000,000 Series C Warrant Common Shares and (iii) 1,510,943 RTI Warrant Common Shares.

Our Common Stock, Public Warrants and units are listed on NASDAQ under the symbols “PCT,” “PCTTW” and “PCTTU,” respectively.

Each Selling Stockholder of the securities and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their securities covered hereby on the principal trading market for such securities or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices.

A Selling Stockholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- in underwritten transactions;
- settlement of short sales;
- in transactions through broker-dealers that agree with the Selling Stockholders to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- distribution to members, limited partners or stockholders of Selling Stockholders;
- “at the market” or through market makers or into an existing market for the shares;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The Selling Stockholders may also sell securities under Rule 144 under the Securities Act, provided that the Selling Stockholders meet the criteria and conform to the requirements of that rule, or any other exemption from registration under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the Selling Stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholders (or, if any broker-dealer acts as agent for the subscriber of securities, from the subscriber) in amounts to be negotiated, but, except as set forth in a supplement to this Prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with applicable FINRA rules.

In connection with the sale of the securities or interests therein, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging the positions they assume. The Selling Stockholders may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities to broker-dealers that in turn may sell these securities. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which

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require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The Selling Stockholders and any broker-dealers or agents that are involved in selling the securities may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each Selling Stockholder has informed the Company that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

The Company is required to pay certain fees and expenses incident to the registration of the shares of Common Stock to be offered and sold pursuant to this prospectus by the Selling Stockholders. The Company has also agreed to indemnify the Selling Stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act or the Exchange Act. The Selling Stockholders will bear all commissions and discounts, if any, attributable to their sale of securities. The Company has agreed to keep this prospectus effective until the earlier of (i) two years from the effective date of the registration statement of which this prospectus forms a part and (ii) the date on which all of the securities offered pursuant to this prospectus have been sold.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not simultaneously engage in market making activities with respect to the Common Stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the Selling Stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the Common Stock by the Selling Stockholders or any other person. We will make copies of this prospectus available to the Selling Stockholders and have informed them of the need to deliver a copy of this prospectus to each subscriber at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

LEGAL MATTERS

The validity of the Common Shares offered hereby will be passed upon for us by Jones Day. Certain legal matters in connection with this offering will be passed upon for any agents or underwriters by counsel for such agents or underwriters identified in the applicable prospectus supplement.

EXPERTS

The consolidated financial statements and management's assessment of the effectiveness of internal control over financial reporting incorporated by reference in this prospectus and elsewhere in the registration statement have been so incorporated by reference in reliance upon the reports of Grant Thornton LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act that registers the Common Shares covered by this prospectus. This prospectus does not contain all of the information set forth in the registration statement and the exhibits thereto. For further information with respect to us and our Common Stock, you should refer to the registration statement and the exhibits filed as a part of the registration statement. Statements contained in or incorporated by reference into this prospectus concerning the contents of any contract or any other document are not necessarily complete. If a contract or document has been filed as an exhibit to the registration statement or one of our filings with the SEC that is incorporated by reference into the registration statement, please see the copy of the contract or document that has been filed. Each statement contained in or incorporated by reference into this prospectus relating to a contract or document filed as an exhibit is qualified in all respects by the filed exhibit. The SEC maintains an Internet website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that website is www.sec.gov.

Additionally, we make available, free of charge, on our website at <https://ir.purecycle.com/>, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports and statements as soon as reasonably practicable after they are filed with the SEC. The contents of our website are not part of this prospectus, and the reference to our website does not constitute incorporation by reference into this prospectus of the information contained on or through that site, other than documents we file with the SEC that are specifically incorporated by reference into this prospectus.

INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to “incorporate by reference” into this prospectus the information in documents we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. Any statement contained in any document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in or omitted from this prospectus or any accompanying prospectus supplement, or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein, modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We incorporate by reference the documents listed below and any future documents that we file with the SEC (excluding any portion of such documents that are furnished and not filed with the SEC) under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (1) on and after the date of the initial filing of the registration statement of which this prospectus is a part prior to the effectiveness of the registration statement, (2) prior to the effectiveness of the registration statement of which this prospectus is a part, and (3) after the date of effectiveness of this prospectus until the offering of the underlying securities is terminated; provided, however, we are not incorporating by reference any information furnished (but not filed) under Item 2.02 or Item 7.01 of any Current Report on Form 8-K:

- our [Annual Report on Form 10-K](#) for our fiscal year ended December 31, 2023, filed with the SEC on March 6, 2024;
- our Quarterly Reports on Form 10-Q for the periods ending [March 31, 2024](#), [June 30, 2024](#) and [September 30, 2024](#) filed with the SEC on May 8, 2024, August 8, 2024 and November 15, 2024, respectively;
- our Current Reports on Form 8-K filed with the SEC on [February 5, 2024](#), [February 12, 2024](#), [February 20, 2024](#), [February 23, 2024](#), [March 25, 2024](#), [March 28, 2024](#), [May 7, 2024](#) (except with respect to Item 2.02 and Item 7.01), [May 13, 2024](#), [June 3, 2024](#), [June 14, 2024](#), [July 12, 2024](#), [August 5, 2024](#), [September 13, 2024](#), [September 18, 2024](#), [October 28, 2024](#), [October 29, 2024](#), [December 5, 2024](#) and [January 6, 2025](#); and
- the description of our Common Stock contained in our [Registration Statement on Form 8-A](#), registering our Common Stock under Section 12(b) under the Exchange Act, filed with the SEC on March 17, 2021, as updated by the description of our Common Stock contained in [Exhibit 4.1](#) filed herewith.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address: PureCycle Technologies, Inc., 20 North Orange Ave., Suite 106, Orlando, Florida 32801; telephone number (877) 648-3565.

PURECYCLE TECHNOLOGIES, INC.

15,039,729 Shares of Common Stock

PROSPECTUS

January 15, 2025
