
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 14A

Proxy Statement Pursuant to Section 14(a) of the
Securities Exchange Act of 1934

(Amendment No. __)

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material under §240.14a-12

ADVENT TECHNOLOGIES HOLDINGS, INC.

(Name of Registrant as Specified in Its Charter)

N/A

(Name of Person(s) Filing Proxy Statement if other than Registrant)

Payment of Filing Fee (Check all boxes that apply):

- No fee required
- Fee paid previously with preliminary materials
- Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules 14a-6(i)(1) and 0-11
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ADVENT TECHNOLOGIES HOLDINGS, INC.

**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD JUNE 13, 2023**

We are pleased to notify you that Advent Technologies Holdings, Inc. (“Advent,” “we,” “our,” “us,” or the “Company”) will hold the 2023 annual meeting of our stockholders on June 13, 2023, at 9:00 a.m. Eastern Time, in a virtual meeting format at www.virtualshareholdermeeting.com/ADN2023 for the following purposes:

1. To elect three (3) directors, each to serve until the 2026 annual meeting of our stockholders;
2. To approve an amendment to our Second Amended and Restated Certificate of Incorporation (“Certificate of Incorporation”) to increase the number of authorized shares of the Company’s common stock, par value \$0.0001 per share (“Common Stock”), from 110,000,000 to 500,000,000, and in conjunction therewith, to increase the aggregate number of authorized shares to 501,000,000;
3. To approve an amendment to our Certificate of Incorporation to permit the exculpation of our officers;
4. To approve, for purposes of complying with Nasdaq Listing Rule 5635(d), the potential issuance and sale of 20% or more of our Common Stock pursuant to the purchase agreement with Lincoln Park Capital Fund, LLC (“Lincoln Park”) pursuant to which Lincoln Park has agreed to purchase from us, from time to time, up to \$50,000,000 of Common Stock;
5. To ratify the appointment of Ernst & Young (Hellas) Certified Auditors Accountants S.A. as our independent registered public accounting firm for our fiscal year ending December 31, 2023; and
6. To transact such other business as may properly come before the meeting or any adjournments and postponements thereof.

Our board of directors has established the close of business on April 21, 2023 as the “record date” for this annual meeting (the “Record Date”). This means that you are entitled to vote at this meeting (by remote communication or by proxy) if our stock records show that you owned our Common Stock at that time.

A list of stockholders as of the Record Date will be available at our headquarters at 500 Rutherford Avenue Suite 102, Boston, MA 02129 for a period of at least ten (10) days prior to our 2023 annual meeting. A list of stockholders will also be available electronically on the virtual meeting website during the meeting.

Similar to last year, our 2023 annual meeting will be a completely virtual meeting, which will be conducted via live webcast. You will be able to attend our 2023 annual meeting online, vote your shares, and submit your questions during the meeting by visiting www.virtualshareholdermeeting.com/ADN2023. Details regarding how to attend the meeting online are more fully described in this proxy statement.

Whether you plan to attend the annual meeting or not, it is important that you cast your vote either by remote communication at the meeting or by proxy. You may vote over the Internet, telephone or by mail. You are urged to vote in accordance with the instructions set forth in this proxy statement. We encourage you to vote by proxy so that your shares will be represented and voted at the meeting, whether or not you can attend. You will need the 16-digit control number included with the Notice, on your proxy card, or the instructions that accompany your proxy materials to attend our 2023 annual meeting virtually via the Internet.

If you have any questions or need assistance voting your shares, please contact our proxy solicitor:

Okapi Partners LLC
1212 Avenue of the Americas, 17th Floor
New York, NY 10036
Toll-Free Phone Number: (855) 305-0855
Email: info@okapipartners.com

Thank you for your continued support of Advent Technologies Holdings, Inc. We look forward to seeing you at the annual meeting.

ADVENT TECHNOLOGIES HOLDINGS, INC.

/s/ James F. Coffey

James F. Coffey

Chief Operating Officer, General Counsel and Secretary

April 24, 2023
Boston, Massachusetts

**IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE
STOCKHOLDER MEETING TO BE HELD ON JUNE 13, 2023:**

**THE PROXY STATEMENT, ANNUAL REPORT AND FORM OF PROXY CARD ARE AVAILABLE AT
[HTTPS://WWW.ADVENT.ENERGY/INVESTORS](https://www.advent.energy/investors)**

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**PROXY STATEMENT
ANNUAL MEETING OF STOCKHOLDERS OF
ADVENT TECHNOLOGIES HOLDINGS, INC.**

TO BE HELD JUNE 13, 2023 AT 9:00 AM EASTERN TIME

INTRODUCTION

The board of directors (the “Board”) of Advent Technologies Holdings, Inc. (“Advent,” “we,” “our,” “us,” or the “Company”) is soliciting proxies from stockholders for its use at the 2023 annual meeting of stockholders, and at any adjournment or adjournments of that meeting. The annual meeting is scheduled to be held on June 13, 2023, at 9:00 a.m., Eastern Time, in a virtual meeting format at www.virtualshareholdermeeting.com/ADN2023.

This proxy statement relates to the solicitation of proxies by our Board for use at the 2023 annual meeting.

On or about April 28, 2023, we will commence mailing a full set of proxy materials to all stockholders entitled to vote at the 2023 annual meeting.

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS

The SEC’s e-proxy rules require companies to post their proxy materials on the Internet and permit them to provide only a Notice of Internet Availability of Proxy Materials to stockholders. The Company’s Proxy Statement for the 2023 Annual Meeting of Stockholders, Proxy Card and Annual Report to Stockholders for the fiscal year ended December 31, 2022 are available at www.advent.energy/Investors.

INFORMATION ABOUT THE MEETING AND VOTING

Purposes of the Meeting

The purposes of the 2023 annual meeting are:

1. To elect three (3) directors, each to serve until the 2026 annual meeting of our stockholders (“Proposal 1”);
2. To approve an amendment to our Second Amended and Restated Certificate of Incorporation (“Certificate of Incorporation”) to increase the number of authorized shares of the Company’s common stock, par value \$0.0001 per share (“Common Stock”), from 110,000,000 to 500,000,000, and in conjunction therewith, to increase the aggregate number of authorized shares to 501,000,000 (“Proposal 2”);
3. To approve an amendment to our Certificate of Incorporation to permit the exculpation of our officers (“Proposal 3”);
4. To approve, for purposes of complying with Nasdaq Listing Rule 5635(d), the potential issuance and sale of 20% or more of our Common Stock pursuant to the purchase agreement with Lincoln Park Capital Fund, LLC (“Lincoln Park”) pursuant to which Lincoln Park has agreed to purchase from us, from time to time, up to \$50,000,000 of Common Stock (“Proposal 4”);
5. To ratify the appointment of Ernst & Young (Hellas) Certified Auditors Accountants S.A. (“EY”) as our independent registered public accounting firm for our fiscal year ending December 31, 2023 (“Proposal 5”); and
6. To transact such other business as may properly come before the meeting or any adjournments and postponements thereof.

At the time this proxy statement was first made available, we knew of no matters that needed to be acted on at the 2023 annual meeting, other than those discussed in this proxy statement.

Record Date; Stockholders Entitled To Vote At The Meeting

Our Board has established the close of business on April 21, 2023 as the “record date” for the 2023 annual meeting (the “Record Date”). This means that you are entitled to vote at this meeting (and any adjournments) if our records show that you owned our Common Stock at that time. As of the Record Date, 52,897,236 shares of our Common Stock were issued and outstanding, held by approximately 31 registered stockholders of record. Each issued and outstanding share of Common Stock as of the Record Date is entitled to one vote on each matter properly to come before the 2023 annual meeting and can be voted only if the record owner of that share, determined as of the Record Date, is present by remote communication at the meeting or represented by proxy. A list of stockholders entitled to vote will be available for examination during the annual meeting at www.virtualshareholdermeeting.com/ADN2023.

Quorum

The presence, virtually online or by proxy, of holders of at least one-third (1/3) of the total votes entitled to be cast by the holders of all issued and outstanding shares of capital stock of the Company entitled to vote is necessary to constitute a quorum for the transaction of business at the 2023 annual meeting. Abstentions, withheld votes and “broker non-votes”, if any, will be included in the calculation of the number of shares considered to be present at the meeting to determine whether a quorum has been established. If a quorum is not present, we will be required to reconvene the annual meeting at a later date.

Virtual Meeting

To participate in the 2023 annual meeting, stockholders as of the Record Date, or their duly appointed proxies, will need the 16-digit control number provided on the proxy card, voting instructions form or Notice. We encourage you to access the meeting 10 minutes before the start time of 9:00 a.m., Eastern Time, on June 13, 2023. Please allow ample time for online check-in, which will begin at 9:00 a.m., Eastern Time, on June 13, 2023. If you encounter any difficulties accessing the virtual meeting during the check-in or meeting time, please call the technical support number that will be posted on the virtual stockholder meeting log in page.

We are committed to ensuring that stockholders will be afforded the same rights and opportunities to participate as they would at an in-person meeting. You will be able to attend the meeting online, vote your shares electronically and submit questions during the meeting by visiting www.virtualshareholdermeeting.com/ADN2023. We will try to answer as many stockholder-submitted questions as time permits that comply with the meeting rules of conduct. However, we reserve the right to edit inappropriate language or to exclude questions that are not pertinent to meeting matters or that are otherwise inappropriate. If we receive substantially similar questions, we will group such questions together and provide a single response to avoid repetition.

Instructions on how to attend and participate via the Internet, including how to demonstrate proof of ownership, will be posted at www.virtualshareholdermeeting.com/ADN2023.

Even if you plan to attend the annual meeting, we recommend that you also vote by proxy as described above so that your vote will be counted if you later decide not to participate in the annual meeting.

Attending the Annual Meeting

The 2023 annual meeting will be held entirely online at www.virtualshareholdermeeting.com/ADN2023. A summary of the information you need to attend the 2023 annual meeting online is provided below:

- Instructions on how to attend and participate via the Internet, including how to demonstrate proof of common stock ownership, are posted at www.virtualshareholdermeeting.com/ADN2023.
- Questions regarding how to attend and participate via the Internet will be answered by calling 1-800-690-6903 on the day before the annual meeting and the day of the 2023 annual meeting.
- Please have your 16-digit control number to enter the 2023 annual meeting.
- Stockholders may submit questions while attending the 2023 annual meeting via the Internet.
- The meeting webcast will begin promptly at 9:00 a.m., Eastern Time.
- We encourage you to access the meeting prior to the start time. Online check-in will begin at 8:30 a.m., Eastern Time, and you should allow ample time for the check-in procedures.

Webcast replay of the 2023 annual meeting will be available until the sooner of June 13, 2024 or the date of the next annual meeting of stockholders to be held in 2024.

Technical Assistance for the Virtual Meeting

We will have technicians ready to assist you with any technical difficulties you may have accessing the virtual meeting website. If you encounter any difficulties accessing the virtual meeting website during the check-in or meeting time, please call the technical support number that will be posted on the annual meeting login page.

Voting Shares That You Hold In Your Name as a Stockholder of Record

If your shares are registered directly in your name with our transfer agent, then you are considered the “stockholder of record” with respect to those shares. You have four choices:

- VOTE BY INTERNET – www.proxyvote.com. Use the Internet to transmit your voting instructions up until 11:59 p.m., Eastern Time, on June 12, 2023. Have the Notice in hand when you access the website. Follow the steps outlined on the secured website.
- VOTE BY MAIL – If you requested and received a proxy card by mail, mark, sign and date your proxy card and return it in the postage-paid envelope we will provide or mail it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.
- VOTE BY PHONE – Use a touch tone phone by calling the toll-free number 1-800-690-6903 to transmit your voting instructions up until 11:59 p.m., Eastern Time, on June 12, 2023. Have the Notice in hand when you access the phone number. Follow the steps outlined on the phone line.
- VOTE BY REMOTE COMMUNICATION AT THE VIRTUAL MEETING – See “*Attending the Annual Meeting*,” below.

Voting Shares That You Hold in Brokerage or Similar Accounts

Many stockholders hold their shares through a broker, bank or other nominee rather than directly in their own name. If you hold your shares in one of these ways, you are considered a beneficial owner, not a record owner, and you therefore have no direct vote on any matter to come before the 2023 annual meeting. Your broker, bank or nominee will send you voting instructions for you to use in directing the broker, bank or nominee in how to vote your shares. Your broker, bank or nominee may allow you to deliver your voting instructions via the telephone or the Internet.

Abstentions and Broker Non-Votes

An abstention is the voluntary act of not voting by a stockholder who is present at a meeting and entitled to vote.

A broker “non-vote” is a proxy submitted by a broker that does not indicate a vote for some or all of the proposals because the broker does not have discretionary voting authority on certain types of proposals that are non-routine matters and has not received instructions from its customer regarding how to vote on a particular proposal. Brokers that hold shares of common stock in “street name” for customers that are the beneficial owners of those shares may generally vote on certain “routine” matters. However, brokers generally do not have discretionary voting power (i.e., they cannot vote) on non-routine matters without specific instructions from their customers. Proposals are determined to be routine or non-routine matters based on the rules of the various regional and national exchanges of which the brokerage firm is a member. Broker non-votes are included in the calculation of the number of votes considered to be present at the meeting for purposes of determining the presence of a quorum but are not counted as votes cast with respect to a matter on which the nominee has expressly not voted.

Proposals 1 and 4 are deemed to be “non-routine” matters, and as a result, your broker or nominee may not vote your shares on Proposal 1 or 4 in the absence of your instruction. Proposals 2, 3 and 5 are considered to be “routine” matters, and as a result, your broker or nominee may vote your shares in its discretion either for or against Proposals 2, 3 and 5 even in the absence of your instruction. If you are a beneficial owner and want to ensure that all of the shares you beneficially own are voted on Proposals 1 and 4, you must give your broker or nominee specific instructions to do so.

Required Votes to Approve Each Proposal; Voting Options

As a stockholder, you may cast one vote for each share of our Common Stock held by you as of the Record Date on all matters presented at the meeting. Holders of our Common Stock do not possess cumulative voting rights.

Proposal	Description of Votes Required
1. Election of Directors	Election of directors are determined by a plurality of the votes properly cast in respect of the shares present in person (including virtually) or represented by proxy at the meeting and entitled to vote on the election of directors, and the director nominees who receive the greatest number of votes at the 2023 annual meeting (up to the total number of directors to be elected) will be elected. With respect to each nominee, you have the option to vote “for” or “withhold.” Abstentions and withheld votes, if any, will not affect the outcome of the vote on the election of directors. The election of directors is a non-routine matter. Therefore, brokerage firms do not have authority to vote customers’ unvoted shares held by the firms in street name for the election of directors. As a result, any shares not voted by a customer will be treated as a “broker non-vote.” Such broker non-votes will have no effect on the election of directors.
2. Amendment to Certificate of Incorporation - Authorized Share Increase of Common Stock	Approval of an amendment to our Certificate of Incorporation to increase the authorized shares of Common Stock to 500,000,000 requires the affirmative vote of a majority of the outstanding shares of our Common Stock by the stockholders represented in person or by proxy entitled to vote thereon. You may vote “for,” “against” or “abstain” on this proposal. This proposal is a routine matter, which means brokerage firms have discretion to vote customers’ unvoted shares on this proposal. As such, broker non-votes are unlikely to result from this proposal. Abstentions will have the same effect as votes against the proposal.
3. Amendment to Certificate of Incorporation - Officer Exculpation	Approval of an amendment to our Certificate of Incorporation to permit the exculpation of our officers requires the affirmative vote of a majority of the outstanding shares of our Common Stock by the stockholders represented in person or by proxy entitled to vote thereon. You may vote “for,” “against” or “abstain” on this proposal. This proposal is a routine matter, which means brokerage firms have discretion to vote customers’ unvoted shares on this proposal. As such, broker non-votes are unlikely to result from this proposal. Abstentions will have the same effect as votes against the proposal.
4. Nasdaq Listing Rule 20% Limitation – Lincoln Park Transaction	Approval, for purposes of complying with Nasdaq Listing Rule 5635(d), of the potential issuance and sale of 20% or more of our Common Stock pursuant to the purchase agreement with Lincoln Park requires the affirmative vote of a majority of the votes cast on such proposal by the stockholders represented in person or by proxy. You may vote “for,” “against” or “abstain” on this proposal. This proposal is a non-routine matter. Therefore, brokerage firms do not have authority to vote customers’ unvoted shares held by the firms in street name on this proposal. As a result, any shares not voted by a customer will be treated as a “broker non-vote.” Abstentions and broker non-votes are not deemed to be votes cast, are not included in the tabulation of voting results on this proposal and will not affect the outcome of voting on this proposal.
5. Ratification of Appointment of EY	Approval of the affirmative vote of a majority of the votes cast by the stockholders represented in person or by proxy is required to approve the ratification of EY as our independent registered public accounting firm for our fiscal year ending December 31, 2023. Please note that because the vote on Proposal 5 is advisory in nature, the results of such vote will not be binding upon our Board or its committees. You may vote “for,” “against” or “abstain” on this proposal. This proposal is a routine matter, which means brokerage firms have discretion to vote customers’ unvoted shares on this proposal. As such, broker non-votes are unlikely to result from this proposal. Abstentions will have no effect on this proposal.

Our Board's Voting Recommendations

Our Board recommends that you vote:

- **FOR** the election as director of each of the three (3) individuals named as its nominees in this proxy statement;
- **FOR** the approval of an amendment to our Certificate of Incorporation to increase our authorized shares of Common Stock to 500,000,000 shares and in conjunction therewith, to increase the aggregate number of authorized shares to 501,000,000 shares;
- **FOR** the approval of an amendment to our Certificate of Incorporation to permit the exculpation of our officers, as described in the proxy statement;
- **FOR** the approval, for purposes of complying with Nasdaq Listing Rule 5635(d), the potential issuance and sale of 20% or more of our Common Stock pursuant to the purchase agreement with Lincoln Park pursuant to which Lincoln Park has agreed to purchase from us, from time to time, up to \$50 million of Common Stock; and
- **FOR** the ratification of the appointment of Ernst & Young (Hellas) Certified Auditors Accountants S.A. as our independent registered public accounting firm for our fiscal year ending December 31, 2023.

If any other matter is properly brought before the 2023 annual meeting, the Company – through the individual named in the proxy and acting as the “proxy holder,” or his or her designee, and pursuant to the blanket authorization granted under the proxy – will vote your shares on that matter in accordance with the discretion and judgment of the proxy holder.

Voting on Possible Other Matters

We are not aware that any person intends to propose that any matter, other than the proposals specifically described by this proxy statement, be presented for consideration or action by our stockholders at our 2023 annual meeting. If any such other matter should properly come before the meeting, however, favorable action on such matter would generally require the affirmative vote of a majority of the votes cast, unless our Certificate of Incorporation or amended and restated bylaws or applicable law require otherwise. If you vote by proxy, you will be granting the proxy holder authority to vote your shares on any such other matter in accordance with his discretion and judgment.

Revocation of Proxies or Voting Instructions

A stockholder of record who has delivered a proxy card in response to this solicitation may revoke it before it is exercised at the 2023 annual meeting by executing and delivering a timely and valid later-dated proxy, by a timely and valid later Internet or telephone vote, by voting by remote communication at the meeting or by giving written notice to the Secretary. Attendance at the meeting online will not have the effect of revoking a proxy unless a stockholder gives proper written notice of revocation to the Secretary before the proxy is exercised or the stockholder votes by remote communication at the meeting. Beneficial owners who have directed their broker, bank or nominee as to how to vote their shares should contact their broker, bank or nominee for instructions as to how they may revoke or change those voting directions.

Interest of Executive Officers and Directors

None of the Company's executive officers or directors has any interest in any of the matters to be acted upon at the meeting, except with respect to each director, to the extent that a director is named as a nominee for election as a director to the Board.

Solicitation of Proxies

Our Board is soliciting the enclosed proxy. We will bear the cost of this solicitation of proxies. Solicitations will be made by mail. We have retained Okapi Partners LLC to assist in the solicitation of proxies for a fee of \$9,000, plus reimbursement of related expenses. In addition to solicitation by mail and by Okapi Partners LLC, our directors, officers and employees may solicit proxies on behalf of the Company, without additional compensation, by telephone, facsimile, mail, on the Internet or virtually via the Internet. We may reimburse banks, brokerage firms, other custodians, nominees and fiduciaries for reasonable expenses incurred in sending proxy materials to beneficial owners of our stock.

PROPOSAL 1

ELECTION OF DIRECTORS

Board Size and Structure

Our authorized board of directors consists of seven (7) members. In accordance with the terms of our second amended and restated certificate of incorporation and amended and restated bylaws, our board of directors is divided into three classes, Classes I, II and III, each to serve a three-year term, except for the directors' initial terms. The Class I directors, Angelos Skutaris and Von McConnell, are up for reelection at the 2024 annual meeting of stockholders, and the Class II directors, Lawrence Epstein and Wayne Threath, will be up for reelection at the 2025 annual meeting of stockholders. The Class III directors are Vassilios Gregoriou, Emory De Castro and Panoraia 'Nora' Gourdoupi, and are up for reelection at this 2023 annual meeting of stockholders. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following the election. We are nominating three (3) Class III directors listed below for re-election. If re-elected, each of these three (3) nominees will serve on our Board until the 2026 annual meeting, or until his or her successor is duly elected and qualified in accordance with our Certificate of Incorporation and amended and restated bylaws, or his or her earlier death, resignation or removal.

Nominees for Election

Below is certain information concerning our Board's nominees for election at this year's 2023 annual meeting. The biographies of each of the nominees below contain information regarding the experiences, qualifications, attributes or skills that caused the nominating and corporate governance committee and our Board to determine that the person should be re-elected as a director of the Company.

Following the director biographies is information concerning our corporate governance structure, including descriptions of the standing committees of our Board, namely our audit, compensation and nominating and corporate governance committees. The directors serving on each committee are listed in the descriptions below. Our directors may also serve on other committees of our Board and the board of directors of the Company's subsidiaries that are not required to be described by this proxy statement and which are therefore not identified in the information below.

Elsewhere in this proxy statement you will find information concerning the number of shares of our Common Stock that are beneficially owned by each of our directors (see "*Security Ownership of Certain Beneficial Owners and Management*") and information regarding the compensation of our directors (see "*Executive Officer and Director Compensation*"). We urge you to review all of this information when deciding how to vote on Proposal 1.

The following persons have been nominated for election to our Board:

Name	Year First Elected as Director
Vassilios Gregoriou	2021
Emory De Castro	2021
Panoraia 'Nora' Gourdoupi	2022

Vassilios Gregoriou, age 58, has been Chairman and CEO of Advent since inception. Dr. Gregoriou cofounded Advent Technologies Inc. in 2012. In addition, Dr. Gregoriou is an internationally known scientist with research and/or managerial positions in both the U.S. (Northeastern, MIT, Polaroid, Princeton) and Greece (NHRF, FORTH) over his 30-year career so far in the technology sector. His research activity extends over a wide area of subjects in the renewable energy space that include the areas of flexible photovoltaics based on organic semiconductors, optically active materials based on conjugated oligomers and polymer nanocomposites. His published work as co-author includes three books and more than 100 scientific papers. He is also co-inventor of 15 patents. Dr. Gregoriou has more than 25 years of experience in the U.S. market. He has extensive experience in the technical development of new products and in the management of such activities. He holds a Ph.D. in Physical Chemistry from Duke University and he has attended the MBA program at Northeastern University. He was also a NRSA award recipient at Princeton University. He also served as President of Society for Applied Spectroscopy(SAS) in 2001. Dr. Gregoriou is well-qualified to serve on the board of directors due to his extensive scientific, managerial and industry experience.

Emory De Castro, age 65, has been Advent's Chief Technology Officer since 2013. Dr. De Castro is responsible for the overall technical, manufacturing and business development operations for Advent. Prior to joining Advent, Dr. De Castro was a Vice President, Business Management and the site manager for BASF Fuel Cell Inc. in Somerset NJ. At BASF Dr. De Castro led marketing and sales, business development, quality control, and R&D direction all cumulating in nearly a four-fold increase in revenues. As the Executive Vice President at the E-TEK Division, De Nora North America he managed operations, created a global brand, and expanded the organization's fuel cell component business in Asia and Europe. Dr. De Castro has over 20 patent applications spanning fuel cell materials and catalysts, electrochemical technology, sensors, and a beer bottle cap that extends shelf life. He is the recipient of the 2013 Department of Energy Award for Manufacturing R&D in lowering the cost of gas diffusion electrodes and the 2005 ECS New Technology Award to E-TEK Division, for introducing and commercializing a new electrolysis technology. Emory De Castro received his Ph.D. from the Department of Chemistry at the University of Cincinnati and a B.S. in Chemistry from Duke University. Dr. De Castro is well-qualified to serve on our board of directors due to his extensive scientific and technological experience.

Nora Gourdoupi, age 44, was appointed as a director in July 2022 and, since February 2021, has served as SVP, Corporate Business Development of the Company's Greek branch overseeing daily operations while being also engaged in product development, government projects and technical sales. Dr. Gourdoupi joined Advent in 2006, became a Senior Scientist in 2012 and is co-inventor in 18 patents. Being part of a fast-growing Small Medium Enterprise from its foundation, she has been involved in several key business processes including materials R&D as well as project management. Dr. Gourdoupi holds a BSc in Chemistry and a PhD from the University of Patras specializing in the synthesis and characterization of polymers for fuel cell applications. Dr. Gourdoupi is well-qualified to serve on our board of directors due to her extensive scientific and technological experience.

Board of Directors

The following information describes the offices held and other business directorships, the class and term of each director whose term continues beyond this 2023 annual meeting and who is not subject to election this year. Beneficial ownership of equity securities for these directors is also shown under "*Security Ownership of Certain Beneficial Owners and Management*" below.

Anggelos Skutaris, age 58, has been a director of Advent since February 2021. Mr. Skutaris has a BSc in Economics from Arizona State University and an MBA from the Thunderbird School of Global Management. He has more than 30 years of international experience in banking, finance, management, treasury and investments. In February 2023, Mr. Skutaris became Chief Investment Officer for Al Khor Holding, a Family Office managing investments for the Al Mesnad family of Qatar. Prior to that, since November 2019, he was a member of the Incorporation Committee and Chief Investment Officer for Power Bank, a Qatar-based financial institution with a mission to provide Islamic financing to the global energy sector. Between August 2017 and November 2019, he served as the Chief Investment Officer for Janus Continental Group. Other key positions he held in the past include: Head of Treasury Operations & Transformation (Qatar Airways), Managing Partner (New Symbol Global Advisors), Chief Executive Officer (Piraeus Capital Management), Founder & CEO (OliveTree Management Associates), Group Treasurer (Titan Cement), Head of Equity Financing (Calyon Securities) and Director of Equity Financing (Credit Suisse). Whilst at Titan cement, Mr. Skutaris was instrumental in issuing the largest corporate syndicated facility in Greece, a 5-year, €800 million transaction. Mr. Skutaris is well-qualified to serve on the board of directors due to his extensive business development and financial experience. Mr. Skutaris is a Class I director, whose term expires at the 2024 annual meeting of stockholders.

Von McConnell, age 63, has been a director since November 2022. Mr. McConnell has nearly four decades of experience in leading technology firms, including Sprint Corporation (now T-Mobile). His positions included serving as the Chief Operating Officer and Executive Director of Operations for Sprint's 4G business unit and he also served as Sprint's Executive Director of Advanced Labs & Innovation, where he was responsible for research and development, systems and network design, engineering, product evaluation, customer trials, and quality certification for all wireless systems and products. Mr. McConnell is currently the founder and president of the TM Group, a successful technology consulting firm which has been engaged in venture capital acquisitions, 5G network rollouts, Division 1 university artificial intelligence programs, and other cutting edge technological commitments. He has served as a director of incubator level and growth stage tech companies and served as a director of a non-profit economic development entity. Mr. McConnell is responsible for dozens of patent innovations. Mr. McConnell has been an advisor and mentor to numerous companies affiliated with the SparkLabKC incubator and served on the Board of Advisors for the Business IT School at the University of Missouri, where he was also an Adjunct Professor. Mr. McConnell holds an executive MBA from AJI Network and a Masters in Telecommunications from George Washington University. He also holds a bachelors degree in economics from Emory & Henry College and is a graduate of economic modeling at George Mason University. Mr. McConnell is well-qualified to serve on the board of directors due to his business experience in the technology sector and his expertise within the field. Mr. McConnell is a Class I director, whose term expires at the 2024 annual meeting of stockholders.

Lawrence Epstein, age 55, has been a director of Advent since April 2022. Mr. Epstein has over two decades of experience in commercial real estate transactions, driving over one billion dollars in transactional value since 2016. Since October 2021, he has been a Senior Managing Director for Savills. Savills is an international leader in promoting sustainability in building operations and design, offering expertise to its worldwide real estate clients in sustainable design, energy infrastructure, strategic advisory, impact assessment, and reporting, offsets and environmental land management and general operational sustainability support. The company was founded in the UK in 1855 and is one of the world's leading brokerage firms. Savills' experience and expertise spans the globe, with offices across Europe, the Americas, Asia Pacific, Africa, and the Middle East. Mr. Epstein focuses exclusively on representing tenants in both the U.S. and international markets. Previously, from May 2016 to September 2021, he was a principal at Avison Young, a commercial real estate company. He is a graduate of Bates College, where he received a BA in History. Mr. Epstein is a member of the Commercial Brokers Association. He formerly served on the Direct Federal Credit Union Board and the Greater Boston Real Estate Association. His volunteer efforts include Call2Talk, a mental health services hotline. Mr. Epstein is well-qualified to serve on the board of directors due to his business experience in the international commercial real estate industry. Mr. Epstein is a Class II director, whose term expires at the 2025 annual meeting of stockholders.

Wayne Threatt, age 68, has been a director of Advent since June 2022. Mr. Threatt has extensive experience in financing, from angel startups through venture capital investments and initial public offerings. He has negotiated and designed all manner of financings, acquisitions, divestitures and strategic alliances, and has conducted nine figure private placement financings. Mr. Threatt is currently the managing principal at WBT Strategy Consulting, where he has worked since 2001, and was formerly a principal at SPC Capital Management, a diversified private equity fund with more than of \$100 million under management. He has years of general management, marketing, and business development experience in both corporate and entrepreneurial environments, in industries spanning from technology to branded consumer goods. Mr. Threatt was previously CEO of Androx Corporation and EMUMAIL, VP Marketing and Sales at Scientific Computing Associates, VP Corporate Development Cambridge SoundWorks, and VP and General Manager Sapphire Audio. He has been a consultant providing strategic capital and operational insight for high-tech industries such as energy, biotechnology, information technology, and photonics. He is a graduate of the University of Chicago, where he received his degree in Physics. Mr. Threatt holds a Master of Science in Physics awarded by the University of Pittsburgh and received his MBA from the Harvard Business School. His volunteer commitments include serving as a board member to Synergy Services, an organization dedicated to helping families in crisis. Mr. Threatt is well qualified to serve on the Advent Board of Directors due to his extensive experience as an executive and with technology companies. Mr. Threatt is a Class II director, whose term expires at the 2025 annual meeting of stockholders.

Required Vote of Stockholders

Election of directors are determined by a plurality of the votes properly cast in respect of the shares present in person (including virtually) or represented by proxy at the meeting and entitled to vote on the election of directors, and the director nominees who receive the greatest number of votes at the 2023 annual meeting (up to the total number of directors to be elected) will be elected. With respect to each nominee, you have the option to vote "for" or "withhold." Abstentions and withheld votes, if any, will not affect the outcome of the vote on the election of directors. The election of directors is a non-routine matter. Therefore, brokerage firms do not have authority to vote customers' unvoted shares held by the firms in street name for the election of directors. As a result, any shares not voted by a customer will be treated as a "broker non-vote." Such broker non-votes will have no effect on the election of directors.

**OUR BOARD RECOMMENDS THAT YOU VOTE FOR ALL THREE (3) OF
THE NOMINEES NAMED UNDER PROPOSAL 1.**

PROPOSAL 2

APPROVAL OF AMENDMENT TO OUR SECOND AMENDED AND RESTATED CERTIFICATE OF INCORPORATION TO INCREASE THE AUTHORIZED NUMBER OF SHARES OF COMMON STOCK TO 500,000,000 AND IN CONJUNCTION THEREWITH, TO INCREASE THE AGGREGATE NUMBER OF AUTHORIZED SHARES TO 501,000,000

On April 11, 2023, the Board of Directors (the “Board”) adopted, subject to stockholder approval, an amendment to Article IV of our Second Amended and Restated Certificate of Incorporation (the “Charter Amendment”) to increase the number of authorized shares of Common Stock from 110,000,000 shares to 500,000,000 shares and, in conjunction therewith, to increase the aggregate number of authorized shares to 501,000,000. The following discussion is qualified by the text of the Charter Amendment, which is set forth in [Appendix A](#) attached to this proxy statement. The Board believes that the Charter Amendment is necessary to maintain flexibility to issue shares of Common Stock for future corporate needs.

The additional authorized shares of Common Stock to be authorized by the Charter Amendment would have rights identical to our current issued and outstanding shares of Common Stock. Issuance of the additional shares of Common Stock would not affect the rights of the holders of our issued and outstanding shares of Common Stock, except for effects incidental to any increase in the number of shares of Common Stock issued and outstanding, such as dilution of earnings per share and voting rights.

If the Charter Amendment is approved by stockholders at the annual meeting, then it will become effective upon filing of a Certificate of Amendment to our Certificate of Incorporation with the Delaware Secretary of State, which filing is expected to occur promptly following the annual meeting. The Board reserves the right, notwithstanding stockholder approval of the Charter Amendment and without further action by our stockholders, not to proceed with the Charter Amendment at any time before it becomes effective.

Capitalization

Our Certificate of Incorporation currently authorizes up to 111,000,000 shares of capital stock, of which 110,000,000 shares are authorized Common Stock and 1,000,000 shares are authorized preferred stock, par value \$0.0001 per share. As of the Record Date, we had no shares of preferred stock issued and outstanding and the Charter Amendment does not affect the number of authorized shares of preferred stock. As of the Record Date, the following shares of Common Stock were issued or reserved for future issuance:

- 52,897,236 shares were issued and outstanding;
- 3,301,314 shares were issuable upon exercise of outstanding options, 2,332,883 shares were issuable upon vesting of outstanding restricted stock units, and 6,915,892 shares were reserved under the Company’s 2021 Equity Incentive Plan among which 273,643 shares are available for future issuance; and
- 26,369,557 shares were reserved for issuance upon exercise of outstanding warrants.

Based on the above, we currently have approximately 24,825,367 authorized shares of Common Stock available for issuance.

Accordingly, we do not believe are sufficient to permit us to respond to potential business opportunities or to pursue important objectives designed to enhance stockholder value, or to recruit and retain employees, directors, officers and consultants. In consideration of the foregoing, the Board approved the Charter Amendment in substantially the form set forth in [Appendix A](#) and has recommended that our stockholders do the same.

Reasons for the Charter Amendment

We believe that an increase in the authorized shares of Common Stock would place us in a more comparable position to our peers and our competitors, and will result in greater flexibility and additional potential opportunities in the future by allowing us to take any one or a combination of the following general corporate initiatives to optimize stockholder value and support our growth plans:

- raise additional growth capital through Common Stock offerings and offerings of securities convertible or exercisable into Common Stock;
- provide equity incentives to attract and retain employees, officers, or directors;
- acquire businesses, technologies, product franchises, or other assets through merger and/or acquisition activity using Common Stock as consideration; or
- issue Common Stock for other corporate purposes.

Without an increase in the number of authorized shares of Common Stock, the number of remaining shares of Common Stock may be insufficient to complete one or more of the above transactions, if and when the Board of Directors deems it to be in the best interests of the stockholders to do so. We believe that having the additional authorized shares available to the Company for issuance, upon approval of the Board, will be beneficial to us and our stockholders by allowing us to promptly consider and respond to future business opportunities as they arise, including in relation to acquisition opportunities, which are competitive and time-sensitive.

The additional authorized shares of Common Stock under the Charter Amendment will provide us with essential flexibility to use our Common Stock, without further stockholder approval (except to the extent such approval may be required by law or by applicable exchange listing standards) for any proper corporate purposes, including, without limitation, raising capital through one or more future public offerings or private placements of equity securities, expanding our business, acquisition transactions, entering into strategic relationships, providing equity-based compensation and/or incentives to employees, consultants, officers and directors, effecting stock dividends or for other general corporate purposes. Having an increased number of authorized but unissued shares of Common Stock would allow us to take prompt action with respect to corporate opportunities that develop, without the delay and expense of convening a special meeting of stockholders for the purpose of approving an increase in our capitalization. The Board will determine whether, when and on what terms the issuance of shares of Common Stock may be warranted in connection with any of the foregoing purposes. Due to market, industry, and other factors, the delay involved in calling and holding a stockholders' meeting to approve an increase in authorized shares at the time a business opportunity presents itself may prevent us from timely pursuing opportunities, or may significantly adversely affect the economic or strategic value of that opportunity. In particular, without additional authorized shares of Common Stock, we may not be able to fully utilize the \$50 million transaction with Lincoln Park, as described in Proposal 4 below, and will be severely restricted in our ability to pursue the additional financing required to support and grow our business.

We currently have no specific plans, arrangements, or understandings to issue additional shares of Common Stock, except for the routine and ongoing issuances under our equity incentive plans, and we have not allocated any specific portion of the proposed increase in authorized common shares to any particular purpose. We continually evaluate our capital structure and may consider an equity offering if, among other things, market conditions are favorable or there is a favorable business opportunity.

If the Charter Amendment is not approved by our stockholders, we may not be able to fully utilize the \$50 million transaction with Lincoln Park and our business development and financing alternatives will be limited by the lack of sufficient unissued and unreserved authorized shares of Common Stock, and stockholder value may be harmed, perhaps severely, by this limitation. In summary, if our stockholders do not approve the Charter Amendment, we may not be able to access the capital markets, conduct strategic business development initiatives, add to our product pipeline, and pursue other business opportunities integral to our growth and success, all of which could severely harm our company and our future prospects.

Possible Effects of the Amendment

If this Proposal 2 to amend the Certificate of Incorporation is approved and adopted by our stockholders, we will file an Certificate of Amendment to our Certificate of Incorporation with the Secretary of State of Delaware shortly after the meeting. The Certificate of Amendment to the Certificate of Incorporation will also include the amendment described in Proposal 3 below, if the amendment described under Proposal 3 is also approved and adopted by stockholders. If this Proposal 2 to amend the Certificate of Incorporation is not approved and adopted, the above-described amendment will not become effective.

The increase in authorized shares of our Common Stock under the Charter Amendment will not have any immediate effect on the rights of existing stockholders. However, because the holders of our Common Stock do not have any preemptive rights, future issuance of shares of Common Stock or securities exercisable for or convertible into shares of Common Stock could have a dilutive effect on our earnings per share, book value per share, voting rights of stockholders and could have a negative effect on the price of our Common Stock.

The Board has not proposed the increase in the number of authorized shares of Common Stock with the intent of using the additional shares to prevent or discourage any actual or threatened takeover of our company. Under certain circumstances, however, the additional authorized shares could be used in a manner that has an anti-takeover effect. For example, the additional shares could be used to dilute the stock ownership or voting rights of persons seeking to obtain control of our company or could be issued to persons allied with the Board or management and thereby have the effect of making it more difficult to remove directors or members of management by diluting the stock ownership or voting rights of persons seeking to effect such a removal. Accordingly, if the Charter Amendment is approved by stockholders, the additional shares of authorized Common Stock may render more difficult or discourage a merger, tender offer or proxy contest, the assumption of control by a holder or group of holders of a large block of Common Stock, or the replacement or removal of one or more directors or members of management.

Vote Required

You may vote “for,” “against” or “abstain” on this proposal. Approval of an amendment to our Certificate of Incorporation to increase the authorized shares of Common Stock to 500,000,000 requires the affirmative vote of a majority of the outstanding shares of our Common Stock by the stockholders represented in person or by proxy entitled to vote thereon.

This proposal is a routine matter, which means brokerage firms have discretion to vote customers’ unvoted shares on this proposal. As such, broker non-votes are unlikely to result from this proposal. Abstentions will have the same effect as votes against the proposal.

<p style="text-align: center;">OUR BOARD RECOMMENDS THAT YOU VOTE FOR THE APPROVAL OF THE AMENDMENT TO OUR CERTIFICATE OF INCORPORATION TO INCREASE THE AUTHORIZED NUMBER OF SHARES OF COMMON STOCK TO 500,000,000 AND IN CONJUNCTION THEREWITH, TO INCREASE THE AGGREGATE NUMBER OF AUTHORIZED SHARES TO 501,000,000.</p>

PROPOSAL 3

APPROVAL OF AMENDMENT TO OUR SECOND AMENDED AND RESTATED CERTIFICATE OF INCORPORATION TO PERMIT THE EXCULPATION OF OUR OFFICERS

On August 1, 2022, the state of Delaware further amended Section 102 (b)(7) of the General Corporation Law of the State of Delaware (the “DGCL”) that would enable a corporation to include in its certificate of incorporation a provision exculpating certain officers from liability for breach of the duty of care in certain actions. As amended, the DGCL only permits, and our proposed amendment would only permit, exculpation of officers for claims that do not involve breaches of the duty of loyalty, acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, or any transaction in which the officer derived an improper personal benefit. In addition, the exculpation of officers would not apply to claims brought by or in the right of the corporation, such as derivative claims.

Officers, like directors, are exposed to a substantial risk of lawsuits or proceedings seeking to impose personal monetary liability. Officer exculpation is intended to enable our officers to exercise their business judgment in furtherance of the interests of our stockholders while minimizing the potential for distraction posed by frivolous lawsuits and costs which are often borne by the corporation either directly, through indemnification, or indirectly through higher insurance premiums. Without officer exculpation, the potential for such frivolous claims may impede the Company’s ability to attract and retain quality executives to work on its behalf, present barriers to the Company’s ability to accomplish its business objectives due to the diversion of management attention and result in a waste of corporate resources.

Taking into account the narrow class and type of claims that such officers would be exculpated from liability for, and the benefits of having officer exculpation provisions in our Certificate of Incorporation, the Board determined that it is in the best interests of the Company and our stockholders to amend Article VI of our Certificate of Incorporation.

Proposed Amendment

The proposed changes to Article VI of our Certificate of Incorporation are set forth in Appendix B to this proxy statement. This summary is qualified in its entirety by reference to Appendix B.

If this Proposal 3 to amend the Certificate of Incorporation is approved and adopted by our stockholders, we will file an Certificate of Amendment to our Certificate of Incorporation with the Secretary of State of Delaware shortly after the meeting that includes the above-described amendment as in Appendix B. If this Proposal 3 to amend the Certificate of Incorporation is not approved and adopted, the above-described amendment will not become effective. The Certificate of Amendment to the Certificate of Incorporation to be filed with the Secretary of State of Delaware shortly after the annual meeting will also include the amendment described in Proposal 2, if the amendment described under Proposal 2 is also approved and adopted by stockholders. The officer exculpation provisions will not become effective until we file the amendment the Certificate of Incorporation and such amendment becomes effective.

The Board retains the discretion to abandon, and not implement, the aforementioned amendment at any time before it becomes effective.

Vote Required

You may vote “for,” “against” or “abstain” on this proposal. Approval of an amendment to our Certificate of Incorporation to permit the exculpation of our officers requires the affirmative vote of a majority of the outstanding shares of our Common Stock by the stockholders represented in person or by proxy entitled to vote thereon.

This proposal is a routine matter, which means brokerage firms have discretion to vote customers’ unvoted shares on this proposal. As such, broker non-votes are unlikely to result from this proposal. Abstentions will have the same effect as votes against the proposal..

<p style="text-align: center;">OUR BOARD RECOMMENDS THAT YOU VOTE FOR THE APPROVAL OF THE AMENDMENT TO OUR CERTIFICATE OF INCORPORATION TO AMEND ARTICLE VI TO PERMIT THE EXCULPATION OF OUR OFFICERS.</p>

PROPOSAL 4

APPROVAL, FOR PURPOSES OF COMPLYING WITH NASDAQ LISTING RULE 5635(D), OF THE POTENTIAL ISSUANCE AND SALE OF 20% OR MORE OF OUR COMMON STOCK PURSUANT TO THE PURCHASE AGREEMENT WITH LINCOLN PARK CAPITAL FUND, LLC PURSUANT TO WHICH LINCOLN PARK HAS AGREED TO PURCHASE FROM US, FROM TIME TO TIME, UP TO \$50 MILLION OF COMMON STOCK

Overview

On April 10, 2023, we entered into a purchase agreement (the “Purchase Agreement”), and a registration rights agreement (the “Registration Rights Agreement”), with Lincoln Park Capital Fund, LLC (“Lincoln Park”), pursuant to which Lincoln Park has committed to purchase up to \$50 million worth of the Company’s Common Stock, subject to certain limitations and conditions set forth in the Purchase Agreement, which is attached hereto as [Appendix C](#). As consideration for its commitment to purchase shares of our Common Stock under the Purchase Agreement, we issued 635,593 shares of Common Stock to Lincoln Park as commitment shares (the “Commitment Shares”).

Under the terms and subject to the conditions of the Purchase Agreement, we have the right, but not the obligation, to sell to Lincoln Park, and Lincoln Park is obligated to purchase up to \$50 million worth of the Company’s Common Stock. Such sales of Common Stock, if any, will be subject to certain limitations, and may occur from time to time, at our sole discretion, over the 36-month period commencing on the effective date of the registration statement for the resale of such shares by Lincoln Park (the “Commencement Date”).

Thereafter, from time to time, at our sole discretion, we may direct Lincoln Park to purchase our shares of Common Stock in amounts up to 200,000 shares on any single business day, which amounts may be increased up to 400,000 shares, depending on the market price of our Common Stock at the time of sale and subject to a maximum commitment by Lincoln Park of \$2,500,000 per single purchase, which we refer to in this proxy as “Regular Purchases.” In addition, at our discretion, Lincoln Park has committed to purchase other “accelerated amounts” and/or “additional accelerated amounts” under certain circumstances. We will control the timing and amount of any sales of our common stock to Lincoln Park. The purchase price of the shares that may be sold to Lincoln Park in Regular Purchases under the Purchase Agreement will be based on the market price of our common stock preceding the time of sale as computed under the Purchase Agreement. The purchase price per share will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, stock split, or other similar transaction occurring during the business days used to compute such price. We may at any time, in our sole discretion, terminate the Purchase Agreement without fee, penalty or cost upon one business day notice. There are no restrictions on future financings, rights of first refusal, participation rights, penalties or liquidated damages in the Purchase Agreement or Registration Rights Agreement, other than a prohibition on our entering into certain types of transactions that are defined in the Purchase Agreement as “Variable Rate Transactions.” Lincoln Park may not assign or transfer its rights and obligations under the Purchase Agreement.

Under applicable rules of the Nasdaq Stock Market, in no event may we issue or sell to Lincoln Park under the Purchase Agreement more than 19.99% of our shares of Common Stock outstanding immediately prior to the execution of the Purchase Agreement (which is 10,447,102 shares of Common Stock, including the Commitment Shares, based on 52,261,643 shares outstanding immediately prior to the execution of the Purchase Agreement and prior to the issuance of the Commitment Shares), which limitation we refer to as the “Exchange Cap,” unless (i) we obtain stockholder approval to issue shares of Common Stock in excess of the Exchange Cap or (ii) the average price of all applicable sales of our shares of common stock to Lincoln Park under the Purchase Agreement equals or exceeds \$1.08 per share (which represents the lower of: (i) the Nasdaq Official Closing Price (as reflected on Nasdaq.com) immediately preceding the signing of the Purchase Agreement; or (ii) the average Nasdaq Official Closing Price of the Common Stock (as reflected on Nasdaq.com) for the five trading days immediately preceding the signing of the Purchase Agreement (the “Minimum Price”)), such that issuances and sales of our shares of common stock to Lincoln Park under the Purchase Agreement would be exempt from the Exchange Cap limitation under applicable Nasdaq Stock Market rules. In any event, the Purchase Agreement specifically provides that we may not issue or sell any of our shares of Common Stock under the Purchase Agreement if such issuance or sale would breach any applicable Nasdaq Stock Market rules.

The Purchase Agreement also prohibits us from directing Lincoln Park to purchase any shares of Common Stock if those shares, when aggregated with all other shares of Common Stock then beneficially owned by Lincoln Park and its affiliates, would result in Lincoln Park and its affiliates having beneficial ownership, at any single point in time, of more than 9.99% of the then issued and outstanding shares of Common Stock, as calculated pursuant to Section 13(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and Rule 13d-3 thereunder.

The net proceeds under the Purchase Agreement will depend on the frequency and prices at which we sell shares of Common Stock to Lincoln Park. We expect that any proceeds received from such sales to Lincoln Park will be used for working capital and general corporate purposes.

The terms of the Purchase Agreement and the Registration Rights Agreement are complex and only briefly summarized above. For further information, please refer to the copy of the Purchase Agreement attached as [Appendix C](#) to this proxy statement, our Current Report on Form 8-K filed on April 11, 2023 and the transaction documents filed as exhibits to such report. The discussion herein is qualified in its entirety by reference to Appendix C and such filed transaction documents.

Why We Need Stockholder Approval

Nasdaq Listing Rule 5635(d) requires stockholder approval for certain transactions, other than public offerings, involving the issuance of 20% or more of the total pre-transaction shares outstanding at less than the applicable Minimum Price (as defined in Listing Rule 5635(d)(1)(A)).

Pursuant to the terms of the Purchase Agreement, the aggregate number of shares that we are permitted to sell to Lincoln Park may in no case exceed 19.99% of the Common Stock outstanding on the date of execution of the Purchase Agreement (referred to as the “Exchange Cap”), or 10,447,102 shares (including the Commitment Shares) unless (i) we obtain stockholder approval to issue shares of Common Stock in excess of the Exchange Cap or (ii) the average price per share of all applicable sales of Common Stock to Lincoln Park under the Purchase Agreement equals or exceeds \$1.08, such that issuances and sales of the Common Stock to Lincoln Park under the Purchase Agreement would be exempt from the Exchange Cap limitation under applicable Nasdaq rules; provided that at no time may Lincoln Park, together with its affiliates, beneficially own more than 9.99% of our Common Stock. In any event, the Purchase Agreement specifically provides that we may not issue or sell any shares of our common stock under the Purchase Agreement if such issuance or sale would breach any applicable Nasdaq rules.

As of April 12, 2023, we had issued the 635,593 Commitment Shares under the Purchase Agreement, leaving 9,811,509 shares of our Common Stock available for issuance without (i) seeking stockholder approval or (ii) assuming the average price per share of such shares equals or exceeds \$1.08. In order to fully utilize the \$50 million available to us under the Purchase Agreement, we may need to issue shares of Common Stock in an amount that is in excess of the Exchange Cap. Accordingly, in order to be able to sell to Lincoln Park the full amount under the Purchase Agreement at a price less than the Minimum Price, we are seeking stockholder approval to issue greater than 20% of our outstanding shares as of the date we entered into the Purchase Agreement with Lincoln Park.

In order to retain maximum flexibility to issue and sell up to the maximum of \$50 million of our Common Stock under the Purchase Agreement, as well as comply with the Nasdaq 20% Rule and to satisfy conditions under the Purchase Agreement, we are seeking stockholder approval to permit issuance of more than 20% of our Common Stock to Lincoln Park pursuant to the Purchase Agreement.

Possible Effects of Disapproval of this Proposal

Our Board is not seeking the approval of our stockholders to authorize our entry into the Purchase Agreement. Unless the Company obtains the approval of its stockholders as required by Nasdaq, the Company will be prohibited from issuing shares of Common Stock, if the issuance of such shares of Common Stock would exceed 19.99% of the Company's outstanding shares of Common Stock or otherwise exceed the aggregate number of shares of Common Stock which the Company may issue without breaching our obligations under the rules and regulations of Nasdaq.

If the stockholders approve this proposal, more than the original 19.99% of our outstanding Common Stock would be available for issuance under the Purchase Agreement at an average price of less than the Minimum Price. The issuance of such shares could result in significant dilution to our stockholders and could substantially reduce our stockholders' percentage interest in the voting power of the Company, if the shares are issued at less than the Minimum Price.

If this Proposal 4 is not approved by our stockholders, we may not be able to issue and sell the maximum amount available pursuant to the Purchase Agreement. Our ability to successfully implement our business plans and ultimately generate value for our stockholders is dependent on our ability to maximize capital raising opportunities. If we were unsuccessful in raising additional capital, we would be required to curtail our plans to expand our manufacturing and sales capabilities and instead reduce operating expenses, dispose of assets, as well as seek extended terms on our obligations, the effect of which would adversely impact future operating results.

Vote Required

You may vote "for," "against" or "abstain" on this proposal. Approval, for purposes of complying with Nasdaq Listing Rule 5635(d), of the potential issuance and sale of 20% or more of the Company's Common Stock pursuant to the Purchase Agreement with Lincoln Park requires the affirmative vote of a majority of the votes cast on such proposal by the stockholders represented in person or by proxy.

This proposal is a non-routine matter. Therefore, brokerage firms do not have authority to vote customers' unvoted shares held by the firms in street name on this proposal. As a result, any shares not voted by a customer will be treated as a "broker non-vote." Abstentions and broker non-votes are not deemed to be votes cast, are not included in the tabulation of voting results on this proposal and will not affect the outcome of voting on this proposal.

<p style="text-align: center;">OUR BOARD RECOMMENDS THAT YOU VOTE "FOR" APPROVAL, FOR PURPOSES OF COMPLYING WITH NASDAQ LISTING RULE 5635(D), OF THE POTENTIAL ISSUANCE AND SALE OF 20% OR MORE OF THE COMPANY'S COMMON STOCK PURSUANT TO THE PURCHASE AGREEMENT WITH LINCOLN PARK</p>

PROPOSAL 5

RATIFICATION OF THE APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

In accordance with its charter, the audit committee of our Board has selected the firm of Ernst & Young (Hellas) Certified Auditors Accountants S.A. (“EY”), an independent registered public accounting firm, to be the Company’s independent registered public accounting firm for the fiscal year ending December 31, 2023, and our Board is asking stockholders (on a non-binding advisory basis) to ratify that appointment. EY served as Advent’s independent registered public accounting firm for the audit of its financial statements for the fiscal years ending December 31, 2022 and 2021. We are not required to have the stockholders ratify the appointment of EY as our independent registered public accounting firm. We nonetheless are doing so because we believe it is a matter of good corporate practice. If the stockholders do not ratify the appointment, the audit committee will reconsider the retention of EY, but ultimately may decide to retain EY as the Company’s independent registered public accounting firm. Even if the appointment is ratified, the audit committee, in its discretion, may change the appointment at any time if it determines that such a change would be in the best interests of the Company and its stockholders.

Before selecting EY, the audit committee carefully considered that firm’s qualifications as an independent registered public accounting firm for the Company. This included a review of its performance for Advent in prior years, including the firm’s efficiency, integrity and competence in the fields of accounting and auditing. The audit committee has expressed its satisfaction with EY in all of these respects.

Representatives of EY will be present at the annual meeting, will have the opportunity to make a statement if they desire to do so and will be available to respond to appropriate questions.

Audit Fees and Services

Audit and other fees billed to us by EY for the fiscal years ended December 31, 2022 and December 31, 2021, respectively, are as follows:

	<u>2022</u>	<u>2021</u>
Audit Fees	\$ 660,790	\$ 851,573
Audit-Related Fees	95,750	11,827
Tax Fees	-	-
All Other Fees	-	-
Total	<u>\$ 756,540</u>	<u>\$ 863,400</u>

Audit Fees. Audit fees consist of fees for professional services rendered for the audit of our year-end financial statements and services that are normally provided by EY in connection with regulatory filings. The aggregate fees of EY related to audit and review services totaled \$660,790 for the year ended December 31, 2022 and \$851,573 for the year ended December 31, 2021. The above amounts include interim procedures and audit fees, as well as attendance at audit committee meetings.

Audit-Related Fees. Audit-related fees consist of fees billed for assurance and related services that are reasonably related to performance of the audit or review of our financial statements and are not reported under “Audit Fees.” These services include attest services that are not required by statute or regulation and consultations concerning financial accounting and reporting standards. During the years ended December 31, 2022 and December 31, 2021, we paid EY \$95,750 and \$11,827, respectively, in audit-related fees.

Tax Fees. We did not pay EY for tax return services, planning and tax advice for each of the year ended December 31, 2022 and December 31, 2021.

All Other Fees. We did not pay EY for any other services for each of the year ended December 31, 2022 and December 31, 2021.

Pre-Approval by Audit Committee of Principal Accountant Services.

Our audit committee is responsible for approving or pre-approving all auditing services (including comfort letters and statutory audits) and all permitted non-audit services by the independent auditor and pre-approve the related fees. Pursuant to its charter, the audit committee delegated to each of its members, acting singly, the authority to pre-approve any audit services if the need for consideration of a pre-approval request arises between regularly scheduled meetings, with such approval presented to the audit committee at its next scheduled meeting or as soon as practicable thereafter.

Vote Required

You may vote “for,” “against” or “abstain” on this proposal. Approval of the affirmative vote of a majority of the votes cast by the stockholders represented in person or by proxy is required to approve the ratification of EY as our independent registered public accounting firm for our fiscal year ending December 31, 2023. Please note that because the vote on Proposal 5 is advisory in nature, the results of such vote will not be binding upon our Board or its committees

This proposal is a routine matter, which means brokerage firms have discretion to vote customers’ unvoted shares on this proposal. As such, broker non-votes are unlikely to result from this proposal. Abstentions will have no effect on this proposal.

<p style="text-align: center;">OUR BOARD RECOMMENDS THAT YOU VOTE FOR THE PROPOSAL TO RATIFY EY AS THE COMPANY’S REGISTERED INDEPENDENT PUBLIC ACCOUNTING FIRM FOR 2023.</p>

THE BOARD OF DIRECTORS AND CERTAIN GOVERNANCE MATTERS

Our Board manages or directs the business and affairs of the Company, as provided by the Delaware General Corporation Law (the “DGCL”), and conducts its business through meetings of the Board and three standing committees: the Audit Committee, the Compensation Committee and the Nominating and Governance Committee.

Our Board evaluates the Company’s corporate governance policies on an ongoing basis with a view towards maintaining the best corporate governance practices in the context of the Company’s current business environment and aligning our governance practices closely with the interest of our stockholders. Our Board and management value the perspective of our stockholders and encourage stockholders to communicate with the Board as described under “Communication with Directors” below.

Board Composition

Our authorized board of directors consists of seven members. In accordance with the second amended and restated certificate of incorporation, our board of directors is divided into three classes, Classes I, II and III, each to serve a three-year term. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following the election. Directors will not be able to be removed during their term except for cause. The directors are divided among the three classes as follows:

- the Class I directors are Angelos Skutaris and Von McConnell, and their terms will expire at the annual meeting of stockholders to be held in 2024;
- the Class II directors are Lawrence Epstein and Wayne Threatt, and their terms will expire at the annual meeting of stockholders to be held in 2025; and
- the Class III directors are Vassilios Gregoriou, Nora Gourdoupi and Emory De Castro, and their terms will expire at the annual meeting of stockholders to be held on June 13, 2023.

We expect that any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. The division of the board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control.

Board Leadership Structure

The leadership of the Board is currently structured so that it is led by the Chairman, Vassilios Gregoriou, who also serves as the Company’s Chief Executive Officer. When the Chairman of the Board is not an independent director, a Lead Director may be elected annually by the Board. The Board has elected Mr. Skutaris to serve as Lead Director.

Our Board has concluded that our current leadership structure is appropriate at this time. However, our Board will continue to periodically review our leadership structure and may make such changes in the future as it deems appropriate.

Director Independence

Our Board currently consists of seven (7) members. Our Board has determined that four (4) of those members, Mr. Epstein, Mr. McConnell, Mr. Skutaris, and Mr. Threatt are independent directors in accordance with the listing requirements of the Nasdaq Stock Market, or Nasdaq. Under the rules of the Nasdaq Stock Market, independent directors must comprise a majority of a listed company’s board of directors within one year of the completion of its initial public offering. In addition, the rules of the Nasdaq Stock Market require that, subject to specified exceptions, each member of a listed company’s audit and compensation committees be independent and that director nominees be selected or recommended for the board’s selection by independent directors constituting a majority of the independent directors or by a nominating and corporate governance committee comprised solely of independent directors. Under the rules of the Nasdaq Stock Market, a director will only qualify as “independent” if, in the opinion of that company’s board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that such person is “independent” as defined by the applicable rules of the Nasdaq Stock Market and the Exchange Act.

Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Exchange Act. In order to be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors or any other board committee: (1) accept, directly or indirectly, any consulting, advisory or other compensatory fee from the listed company or any of its subsidiaries or (2) be an affiliated person of the listed company or any of its subsidiaries.

Based upon information requested from and provided by each director concerning his background, employment and affiliations, including family relationships, our board of directors has determined that four of our directors are “independent directors” as defined under applicable rules of the Nasdaq Stock Market, including, in the case of all the members of our audit committee, the independence criteria set forth in Rule 10A-3 under the Exchange Act, and in the case of all the members of our compensation committee, the independence criteria set forth in Rule 10C-1 under the Exchange Act. In making such determination, our board of directors considered the relationships that each such non-employee director has with our Company and all other facts and circumstances that our board of directors deemed relevant in determining his or her independence, including the beneficial ownership of our capital stock by each non-employee director. Mr. Gregoriou is not an independent director under these rules because he is our Chief Executive Officer. Emory De Castro is not an independent director under these rules because he is our Chief Technology Officer. Nora Gourdoupi is not an independent director under these rules because she is our Senior Vice President of Business Development.

Role of Board in Risk Oversight Process

Our Board has an active role, as a whole and also at the committee level, in overseeing the management of our risks. Our board of directors is responsible for general oversight of risks and regular review of information regarding our risks, including credit risks, liquidity risks and operational risks. The compensation committee is responsible for overseeing the management of risks associated with our compensation policies and practices. The audit committee is responsible for overseeing the management of risks relating to accounting matters and financial reporting. The nominating and corporate governance committee is responsible for overseeing the management of risks associated with potential conflicts of interest. Although each committee is responsible for evaluating certain risks and overseeing the management of such risks, the entire Board is regularly informed through discussions from committee members about such risks. Our Board believes its administration of its risk oversight function has not negatively affected our board of directors’ leadership structure.

Committees and Attendance

During 2022, our Board held four (4) meetings, the audit committee held four (4) meetings, the compensation committee held eight (8) meetings and the nominating and corporate governance committee held no meetings but acted by written consent three (3) times. During that time, no member of our Board attended fewer than 75% of the aggregate of (i) the total number of meetings of our Board (held during the period for which he was a director) and (ii) the total number of meetings held by all committees of our Board on which he or she served (held during the period that such director served).

In addition to regular meetings of our Board, the Company’s non-management, independent directors meet in executive sessions without management participation.

Our Board has established three standing committees – audit, compensation and nominating and corporate governance – each of which operates under a charter that has been approved by our Board. The charters for each committee are available under the Investors / Governance / Governance Documents page on our website at www.advent.energy.

Audit Committee

Our audit committee consists of Mr. Skutaris, Mr. Epstein and Mr. Threatt. The board of directors has determined that each member is independent under the Nasdaq Stock Market listing standards and Rule 10A-3(b)(1) under the Exchange Act. The chairperson of our audit committee is Mr. Skutaris. Our board of directors has determined that Mr. Skutaris qualifies as an “audit committee financial expert” as such term is defined in Item 407(d)(5) of Regulation S-K and possesses financial sophistication, as defined under the rules of Nasdaq Stock Market.

The primary purpose of the audit committee is to discharge the responsibilities of the board of directors with respect to our accounting, financial, and other reporting and internal control practices and to oversee our independent registered accounting firm. Specific responsibilities of our audit committee include:

- selecting a qualified firm to serve as the independent registered public accounting firm to audit our financial statements;
- helping to ensure the independence and performance of the independent registered public accounting firm;
- discussing the scope and results of the audit with the independent registered public accounting firm, and reviewing, with management and the independent accountants, our interim and year-end operating results;
- developing procedures for employees to submit concerns anonymously about questionable accounting or audit matters;
- reviewing policies on risk assessment and risk management;
- reviewing related party transactions;
- obtaining and reviewing a report by the independent registered public accounting firm at least annually, that describes our internal quality-control procedures, any material issues with such procedures, and any steps taken to deal with such issues when required by applicable law; and
- by the independent registered public accounting firm.

The report of the audit committee is included in this proxy statement under “*Report of the Audit Committee.*”

Compensation Committee

The compensation committee consists of Mr. Epstein and Mr. Skutaris. The chairperson of the compensation committee is Mr. Epstein. The primary purpose of the compensation committee is to discharge the responsibilities of the board of directors to oversee its compensation policies, plans and programs and to review and determine the compensation to be paid to its executive officers, directors and other senior management, as appropriate.

Specific responsibilities of the compensation committee include:

- reviewing and approving on an annual basis the corporate goals and objectives relevant to our Chief Executive Officer’s compensation, evaluating our Chief Executive Officer’s performance in light of such goals and objectives and determining and approving the remuneration (if any) of our Chief Executive Officer based on such evaluation;
- reviewing and approving the compensation of our other executive officers;
- reviewing and recommending to our board of directors the compensation of our directors;
- reviewing our executive compensation policies and plans;

- reviewing and approving, or recommending that our board of directors approve, incentive compensation and equity plans, severance agreements, change-of-control protections and any other compensatory arrangements for our executive officers and other senior management, as appropriate;
- selecting independent compensation consultants and assessing whether there are any conflicts of interest with any of the committee’s compensation advisors;
- assisting management in complying with our proxy statement and Annual Report disclosure requirements;
- if required, producing a report on executive compensation to be included in our annual proxy statement;
- reviewing and establishing general policies relating to compensation and benefits of our employees; and
- reviewing our overall compensation philosophy.

Role of the Compensation Consultant

In accordance with the Compensation Committee Charter, the Compensation Committee has the authority to engage, retain and terminate a compensation consultant. The Compensation Committee also has the sole authority to approve the fees of such consultant. The Compensation Committee engaged ClearBridge Compensation Group LLC (“ClearBridge”) as its independent compensation consultant. ClearBridge reports directly to the Compensation Committee, which has authority under the Compensation Committee Charter to retain compensation consultants, although its representatives may also meet with management from time to time.

Services performed by ClearBridge for the Compensation Committee include, but are not limited to:

1. reviewing the Company’s compensation philosophy;
2. evaluation of compensation program design for 2022;
3. providing market context for Compensation Committee decisions
 - a. In 2022, the Company elected to forgoe establishing a compensation peer group, and as a result relied on survey data for benchmark purposes (as needed), scoped to the Company’s size;
4. review of cash bonuses paid to executive officers;
5. review of long-term incentive awards;
6. review and determine go-forward non-employee director compensation program; and
7. analysis of current trends in executive compensation, and updates regarding applicable legislative and governance activity.

The Compensation Committee determined that the services provided by ClearBridge to the Compensation Committee did not give rise to any conflicts of interest. The Compensation Committee made this determination by assessing the independence of ClearBridge under the applicable rules adopted by the SEC and incorporated into the Nasdaq Corporate Governance Requirements. In making this assessment, the Compensation Committee also considered ClearBridge’s written correspondence to the Compensation Committee that affirmed the independence of ClearBridge and the consultants and employees who provide services to the Compensation Committee on executive compensation matters.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee consists of Mr. Threatt and Mr. Epstein. The board of directors has determined each proposed member is independent under Nasdaq listing standards. The chairperson of our nominating and corporate governance committee is Mr. Threatt.

Specific responsibilities of our nominating and corporate governance committee include:

- identifying, evaluating and selecting, or recommending that our board of directors approve, nominees for election to our board of directors;
- evaluating the performance of our board of directors and of individual directors;
- reviewing developments in corporate governance practices;
- evaluating the adequacy of our corporate governance practices and reporting;
- reviewing management succession plans; and
- developing and making recommendations to our board of directors regarding corporate governance guidelines and matters.

Code of Business Conduct and Ethics

The Company's Code of Business Conduct and Ethics applies to all of its employees, officers and directors, including those officers responsible for financial reporting. The Code of Business Conduct and Ethics is available on its website at www.advent.energy. Information contained on or accessible through such website is not a part of this Annual Report, and the inclusion of the website address in this Annual Report is an inactive textual reference only. The Company intends to disclose any amendments to the Code of Business Conduct and Ethics, or any waivers of its requirements, on its website to the extent required by the applicable rules and exchange requirements.

Our corporate governance guidelines are available under the Investors / Governance / Governance Documents page of our website, www.advent.energy.

Director Nomination Process

Our Board has delegated to the nominating and corporate governance committee the task of identifying, considering, recruiting, reviewing and recommending a slate of director nominees to be proposed by the Board to the stockholders, and recommending any director nominees to be elected by the Board to fill interim vacancies. It is the policy of our Board that directors should possess strong personal and professional ethics, integrity and values; be business savvy and genuinely interested in the Company; and be committed to representing the long-term interests of the stockholders. The Board is also intended to encompass a range of talents, ages, skills, diversity and expertise sufficient to provide sound and prudent oversight with respect to the operations and interests of the business. Selection of candidates shall include consideration of a range of diversity perspectives, including but not limited to professional experience, skills, knowledge and length of service.

The biography for each of the director nominees included herein indicate each nominee's experience, qualifications, attributes and skills that led our nominating and corporate governance committee and our Board to conclude each such director should continue to serve as a director of our Company. Our nominating and corporate governance committee and our Board believe that each of the nominees has the individual attributes and characteristics required of each of our directors, and the nominees as a group possess the skill sets and specific experience desired of our Board as a whole.

Stockholders have the right under our amended and restated bylaws to directly nominate director candidates for election at an annual meeting of stockholders, without any action or recommendation on the part of the nominating and corporate governance committee or our Board, by submitting to the Company as to each nominee that the stockholder proposes for election or re-election as a director (i) all information relating to such nominee that would be required to be disclosed in solicitations of proxies for the election of such nominee as a director pursuant to Regulation 14A under the Exchange Act and such nominee's written consent (I) to be named as a nominee in the Company's proxy statement, proxy card, and/or ballot, if the Board approves such inclusion, and (II) to serve as a director if elected, and (ii) a description of all direct and indirect compensation and other material monetary arrangements, agreements or understandings during the past three years, and any other material relationship, if any, between or concerning such stockholder and any Stockholder Associated Person (as defined in the Company's amended and restated bylaws) or any of their respective affiliates or associates, on the one hand, and the proposed nominee or any of his or her respective affiliates or associates, on the other hand. Any such nomination must be made by a stockholder of record of the Company at the time of making such nomination and meet such other requirements as are set forth in the Company's amended and restated bylaws. Such nomination information should be submitted to: Advent Technologies Holdings, Inc., 500 Rutherford Avenue Suite 102, Boston, MA 02129, Attention: Corporate Secretary.

Communication with Directors

Any stockholder or other interested parties desiring to communicate with our Board, or one or more of our directors, may send a letter addressed to the board of directors, Advent Technologies Holdings, Inc., 500 Rutherford Avenue Suite 102, Boston, MA 02129, Attention: Corporate Secretary. All such letters will be promptly forwarded to the appropriate members of our Board, the appropriate committee chairperson or individual directors, as applicable, by the Secretary. The mailing envelope should contain a clear notation that the enclosed letter is a "Stockholder-Board Communication" or "Stockholder-Director Communication." All such letters should clearly state whether the intended recipients are all members of our Board or certain specified individual directors.

Director Attendance at Annual Meeting

Each director who is up for election at an annual meeting of stockholders or who has a term that continues after such annual meeting is required to attend the 2023 annual meeting.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth information known to the Company regarding the beneficial ownership of our common stock as of April 21, 2023 by:

- each person known to us to be the beneficial owner of more than 5% of outstanding common stock;
- each of our named executive officers and directors; and
- all executive officers and directors as a group

Beneficial ownership is determined according to the rules of the SEC, which generally provide that a person has beneficial ownership of a security if he, she or it possesses sole or shared voting or investment power over that security, including options and warrants that are currently exercisable or exercisable within 60 days. Stock issuable upon exercise of options and warrants currently exercisable within 60 days are deemed outstanding solely for purposes of calculating the percentage of total voting power of the beneficial owner thereof.

The beneficial ownership of Company common stock is based on 52,897,236 shares of Common Stock outstanding as of April 21, 2023.

Unless otherwise indicated, the Company believes that each person named in the table below has sole voting and investment power with respect to all shares of Company common stock beneficially owned by them.

Name and Address of Beneficial Owner	Number of Shares	%
<i>Directors and Executive Officers</i>		
Vassilios Gregoriou ⁽¹⁾	6,206,828	11.6%
Emory De Castro ⁽²⁾	2,413,501	4.6%
James Coffey ⁽²⁾	877,394	1.7%
Nora Gourdoupi ⁽³⁾	166,985	*
Kevin Brackman ⁽⁴⁾	88,983	*
Christos Kaskavelis ⁽²⁾	4,049,909	7.7%
Angelos Skutaris ⁽⁵⁾	83,820	*
Lawrence Epstein ⁽⁵⁾	67,616	*
Wayne Threatt ⁽⁵⁾	64,516	-
Von McConnell	-	-
<i>All directors and executive officers as a group (ten individuals)⁽⁶⁾</i>	<u>14,019,552</u>	<u>26.0%</u>
<i>Five Percent Holders:</i>		
BNP Paribas Asset Management UK Ltd. ⁽⁷⁾	5,549,573	10.8%
Charalampos Antoniou ⁽⁸⁾	2,775,049	5.3%

* Less than one percent.

- (1) Share amount includes 461,060 shares issuable upon exercise of options.
- (2) Share amount includes an aggregate of 172,896 shares issuable upon exercise of options.
- (3) Share amount includes an aggregate of 18,750 shares issuable upon exercise of options.
- (4) Share amount includes an aggregate of 57,632 shares issuable upon exercise of options.
- (5) Includes 64,516 shares underlying RSUs that will vest within 60 days.
- (6) Share amount includes an aggregate of 1,056,134 shares issuable upon exercise of options and 193,548 shares underlying unvested RSUs. Unless otherwise indicated, the business address of each of the individuals is 500 Rutherford Ave Suite 102, Boston, MA 02129.
- (7) Pursuant to a Schedule 13G filed with the SEC on January 31, 2023, BNP Paribas Asset Management UK Ltd. ("BNP") has sole voting and dispositive power over such shares. The business address for BNP is 5 Aldermanbury Square, London, EX2V 7BP.
- (8) Share amount includes 1,784,389 shares owned by Neptune International AG, an entity for which Mr. Antoniou holds shared voting and dispositive power with regard to such shares of Company common stock. The business address of Mr. Antoniou is Bernoldweg 14, ZUG, 6300, Switzerland. The business address of Neptune International AG is Bahnhofstrasse 7, ZUG, 6300, Switzerland.

EXECUTIVE OFFICERS

The below table identifies and sets forth certain biographical and other information regarding our executive officers as of April 21, 2023. Biographical information for Drs. Gregoriou and De Castro is set forth under “*Proposal 1—Election of Directors.*” There are no family relationships among any of our executive officers or directors.

Name	Age	Position
Vassilios Gregoriou	58	Chairman, Chief Executive Officer and Director
Kevin Brackman	50	Chief Financial Officer
Christos Kaskavelis	54	Chief Marketing Officer
Emory De Castro	65	Chief Technology Officer and Director
James F. Coffey	60	Chief Operating Officer and General Counsel

Executive Officers

Kevin Brackman has been Chief Financial Officer of Advent since July 2021. Prior to joining the Company, Mr. Brackman served as Executive Vice President, Chief Financial Officer of Myers Industries, a publicly traded corporation with internationally located manufacturing and sales operations in the polymer production sector. Before his promotion to Chief Financial Officer in 2018, he served as Myers Industries’ Chief Accounting Officer and Corporate Controller. Prior to joining Myers Industries in 2015, Mr. Brackman was Director of Financial Planning and Analysis, Financial Reporting and Technical Accounting at Ingersoll-Rand and previously excelled in a variety of positions at Chiquita Brands International, including Assistant Corporate Controller and Controller - North American operations. Mr. Brackman received his bachelor’s degree in Accounting and Finance from Miami University.

Christos Kaskavelis joined Advent as Chief Marketing Officer in 2019. From 2015 to 2016 he served as Managing Director of Mamaya IKE, a Greek publishing and media consulting company. From 2016 to 2018, he was a research scholar at the MIT Media Lab in Boston, Massachusetts. He has been a seed investor in the Company, an angel investor, and has served on its board of directors. He is a serial entrepreneur in the tech industry and primarily digital marketing, with successful exits in both Nasdaq and London Stock Exchanges. He has designed and been responsible for enterprise software systems designed for Pratt & Whitney, Analog Devices, General Electric and Lucent Technologies in the areas of Just-In-Time (JIT) manufacturing, Supply Chain Management and Production Scheduling. He holds a Ph.D. in Supply Chain Management as well as an M.Sc. in Manufacturing Engineering from Boston University, a B.Sc. in Electrical Engineering and a B.A. in Business Economics from Brown University.

James F. Coffey has served as General Counsel and Corporate Secretary of Advent since March 2020. Beginning in 2018, while a partner at a national Am Law 100 law firm, Jim served as Advent’s outside legal counsel. Mr. Coffey has over thirty years of experience in corporate and securities law, mergers and acquisitions, venture capital and corporate finance, and intellectual property law. He has extensive international experience having closed transactions in both North and South America, Europe, and China. Throughout the course of his career, Jim has developed strong relationships and strategic contacts within the clean energy and technology sectors and specific experience in the fuel cell industry. From 2013 to 2017, he served as general counsel to another HT PEM fuel cell company that was a customer of Advent. Mr. Coffey was a Gerald L. Wallace Scholar at New York University School of Law where he received an LL.M. in Corporate Law. He received his J.D. from the New England School of Law, and his B.A., cum laude, from Providence College. Mr. Coffey is listed in The Best Lawyers in America® for Mergers and Acquisitions. He is recognized for his work in intellectual property law by the IAM Patent 1000. Mr. Coffey was named a Massachusetts Super Lawyer by Law and Politics magazine. He is AV® rated by Martindale-Hubbell. Mr. Coffey is a fellow of the Boston Bar Foundation and the American Bar Foundation.

EXECUTIVE COMPENSATION

Introduction

The following section describes certain information about the compensation paid or accrued during the years ended December 31, 2022 and 2021 to our Chief Executive Officer and each of our two most highly compensated executive officers other than our Chief Executive Officer who were serving as executive officers at December 31, 2022, and whose annual compensation exceeded \$100,000 during such year or would have exceeded \$100,000 during such year if the executive officer were employed by the Company for the entire fiscal year. These individuals, who Advent refers to collectively as the “named executive officers” or “NEO” in this proxy statement, are:

- Vassilios Gregoriou, Chief Executive Officer and Chairman of our Board of Directors;
- James Coffey, Chief Operating Officer and General Counsel; and
- Kevin Brackman, Chief Financial Officer.

This section also provides an overview of certain compensation arrangements that Advent adopted in connection with the Business Combination. This discussion may contain forward-looking statements that are based on the Company’s current plans, considerations, expectations and determinations regarding future compensation programs. The actual compensation programs that we adopt may differ materially from the programs summarized in this discussion.

Summary Compensation Table

The following table sets forth the compensation awarded to, earned by, or paid to the named executive officers in respect of their service to Advent during its fiscal years ended December 31, 2022 and 2021.

Name and Principal Position	Fiscal Year	Salary (\$)	Bonus (\$) ⁽¹⁾⁽²⁾	Stock Awards (\$) ⁽³⁾	Option Awards (\$) ⁽³⁾	Non-Equity Incentive Plan Compensation (\$)	All Other Compensation (\$) ⁽⁴⁾	Total (\$)
Vassilios Gregoriou <i>Chairman of the Board of Directors and Chief Executive Officer</i>	2022	\$ 800,000	-	\$ 479,500	\$ 418,250	-	-	\$ 1,697,750
	2021	\$ 800,000	\$ 3,000,000	\$ 9,553,142	\$ 4,647,475	\$ 1,200,000	-	\$ 19,200,617
James Coffey <i>Chief Operating Officer and General Counsel</i>	2022	\$ 475,000	-	-	-	-	-	\$ 475,000
	2021	\$ 475,000	\$ 770,000	\$ 3,582,426	\$ 1,742,802	\$ 475,000	-	\$ 7,045,228
Kevin Brackman <i>Chief Financial Officer</i>	2022	\$ 375,000	-	-	-	-	-	\$ 375,000
	2021	\$ 187,500	-	\$ 1,756,631	\$ 995,885	\$ 375,000	\$ 40,000	\$ 3,355,016

(1) The Company entered into transaction bonus letter agreements with Dr. Gregoriou and Mr. Coffey, which entitled the executives to receive a transaction bonus which was paid promptly in February 2021 following the Business Combination, contingent upon such executive’s continued employment through the consummation of the Business Combination and execution of a general release of claims.

(2) The Company entered into employment agreements with Dr. Gregoriou and Mr. Coffey, which entitled the executives to receive a one-time sign-on bonus in 2021.

(3) The amounts included under the “Stock Awards” and “Option Awards” columns reflect the aggregate grant date fair value of such awards granted during the 2022 and 2021 fiscal years. For more information regarding these share-based compensation arrangements, see Note 17 to the audited Consolidated Financial Statements for the year ended December 31, 2022 included as part of this filing and Note 16 to the audited Consolidated Financial Statements for the year ended December 31, 2021 as part of the 2021 Annual Report filed with the SEC on March 31, 2022.

(4) Mr. Brackman received \$40,000 in relocation expense benefits during 2021.

Narrative Disclosure to Summary Compensation Table

Compensation Philosophy and Objectives

The Company operates in a dynamic and rapidly evolving environment, which requires a highly-skilled and technical workforce. As a result, the Company places great emphasis on its ability to attract, retain, and motivate top talent in the industry. The Company achieves these objectives by creating an appropriate balance between achieving short-term results and creating long-term sustainable value to shareholders that reinforces the linkage between pay and performance.

Elements of Executive Compensation

The compensation of executives of the Company includes three main elements: (i) base salary; (ii) an annual bonus; and (iii) long-term equity incentives. Perquisites and personal benefits are not a significant element of compensation for the Company's executive officers.

Base Salaries

Base salary is provided as a fixed source of compensation for the Company's executive officers. Adjustments to base salaries are reviewed annually and as warranted throughout the year to reflect promotions or other changes in the scope of an executive officer's role or responsibilities, as well as to maintain market competitiveness.

Dr. Gregoriou's annual base salary was \$800,000; Mr. Coffey's annual base salary was \$475,000; and Mr. Brackman's annual base salary was \$375,000 for the year ended December 31, 2022.

Annual Bonuses

In 2022, the named executive officers were each eligible to receive an annual cash incentive award, based on the achievement of pre-approved key performance objectives determined by the Compensation Committee.

As provided in their respective employment agreements, the target bonus amount for Dr. Gregoriou was 150% of his base salary and for Messrs. Coffey and Brackman were 100% of their base salaries. Actual bonus payouts vary based on Compensation Committee assessment of executive performance versus pre-established key performance indicators.

Management, at its discretion, decided there will not be performance related bonus payouts for fiscal year 2022.

Equity Compensation

In 2021, the Company adopted the Advent Technologies Holdings, Inc. 2021 Incentive Plan (the "2021 Equity Incentive Plan"). The 2021 Equity Incentive Plan advances the Company's interests by providing for the grant to our employees, directors, consultants and advisors of stock options, SARs, restricted and unrestricted stock and stock units, performance awards and other awards that are convertible into or otherwise based on our common stock.

Following the Business Combination, on June 11, 2021, the Compensation Committee made grants to select senior executives. The grants were made to recognize each executive's role and contributions to date, including outstanding efforts towards a successful transaction, as well as to incentivize and to retain the executives, and to further align them with the post-Business Combination stockholders. As a result of the Business Combination grants, and Mr. Brackman's sign-on award in 2021, the Compensation Committee elected to not make any additional annual grants in 2022 to the NEOs.

In recognition of Dr. Gregoriou's role and contributions related to the ratification of GreenHiPo by the EU, the Compensation Committee, in July 2022, granted a one-time special award of 175,000 time-vested restricted stock units ("RSUs") and stock options to purchase 175,000 shares of common stock to Dr. Gregoriou.

Transaction Bonus Letter Agreements with Executive Officers

Advent entered into transaction bonus letter agreements with each of Dr. Gregoriou and Mr. Coffey, which entitled each executive to receive a transaction bonus that was payable promptly following the Business Combination, contingent upon such executive's continued employment through the consummation of the Business Combination and execution of a general release of claims. The transaction bonuses, which were paid at the time of the Business Combination in February 2021, were as follows: (i) for Dr. Gregoriou, \$2,500,000, and (ii) for Mr. Coffey, \$520,000.

One-Time Bonuses

On October 12, 2020, in connection with the execution of the Merger Agreement and the announcement of the Merger, Advent entered into employment agreements, with each of Dr. Gregoriou and Mr. Coffey. As part of the employment agreements, Advent agreed to pay one-time sign-on bonuses payable in two installments: (i) 50% on the first payroll date following the consummation of the Business Combination and (ii) 50% to be paid on the first payroll date following the one-year anniversary of the consummation of the Business Combination, subject to the applicable executive's employment through the relevant payment date. The one-time bonuses were as follows: (i) Dr. Gregoriou, \$500,000 and (ii) Mr. Coffey, \$250,000.

Employment Agreements

Advent is a party to certain offer letters with each of the named executive officers that set forth the initial terms and conditions of the officer's employment with Advent, each of which has since been superseded by new employment agreements as described in "Executive Compensation-Employment Agreements and Other Arrangements with Executive Officers and Directors" below. The material terms of these offer letters are summarized below.

Dr. Gregoriou. On December 3, 2012, Advent entered into an offer letter with Dr. Gregoriou, which provided for an annual base salary of \$170,000, eligibility to receive an annual performance bonus of cash and performance stock awards and an initial grant of restricted stock awards in an amount equal to 4% of outstanding common stock on Dr. Gregoriou's date of hire. Pursuant to the offer letter, if Dr. Gregoriou's employment is terminated without "cause" or if he resigns for "good reason" (as each such term was defined in the offer letter), he is entitled to (i) 6 months' base salary continuation and (ii) 12 months' subsidized benefits continuation, in each case subject to Dr. Gregoriou's execution and non-revocation of a release of claims. As described in further detail in the "Executive Compensation-Employment Agreements and Other Arrangements with Executive Officers and Directors" section of this proxy statement, effective as of the consummation of the Business Combination, this offer letter was superseded in its entirety by a new employment agreement between Dr. Gregoriou and Advent.

On October 19, 2019, Dr. Gregoriou separately entered into an agreement with Advent that contained (i) a perpetual confidentiality covenant, (ii) an assignment of intellectual property covenant, (iii) a non-competition covenant for two year post-termination of employment, (iv) a covenant not to solicit any of Advent's customers or patrons during the two-year period following termination and (v) a covenant not to solicit any of Advent's employees or consultants during the two-year period following termination.

Mr. Coffey and Mr. Brackman. As described in further detail in the "Executive Compensation-Employment Agreements and Other Arrangements with Executive Officers and Directors" section of this proxy statement, in connection with the announcement of the Business Combination, Mr. Coffey entered into an employment agreement with Advent, which became effective as of the consummation of the Business Combination. Mr. Brackman entered into an employment agreement with Advent on August 13, 2021, which was effective as of July 2, 2021 and superseded certain offer letter entered into between the Company and Mr. Brackman dated July 2, 2021.

Employee Benefits

The Company sponsors an employee savings plan under Section 401(k) of the Internal Revenue Code. Subsequent to the Business Combination, the Company made matching contributions equal to 100% of the participant's pre-tax contribution up to a maximum of 5% of the participant's eligible earnings for U.S. employees. Total expense related to the Company's defined contribution plan was \$0.3 million and \$0.1 million for the years ended December 31, 2022 and 2021.

As described in Note 2 of the financial statements for the year ended December 31, 2022 set forth in the Company's 2022 Annual Report (filed on March 31, 2023), pursuant to Greek Labor Law 2112/1920, employees in Greece are entitled to an indemnity in the event of dismissal or retirement, though as a director, Dr. Gregoriou is not eligible for such indemnity.

Other Compensation Policies

Stock Ownership/Holding Policy

The Company maintains meaningful stock ownership guidelines to reinforce the importance of stock ownership. These guidelines are intended to align the interests of executives and shareholders and to focus the executives on our long-term success. Under these guidelines, each of our active executives and non-employee directors must own shares in accordance with the following schedule:

Role	Required Ownership Level
Chief Executive Officer and Chairman	6.0x Base Salary
Other Executive Officers	3.0x Base Salary
Non-Employee Directors	3.0x Annual Cash Retainer

Shares that count towards satisfying the ownership requirements include:

- Shares owned by the executive/director, including those obtained through the vesting of restricted stock units and performance stock units;
- Shares owned jointly by the executive/director and spouse or held in trust established by the; executive/director for the benefit of the executive/director and/or family members;
- Unvested time-based restricted stock units;
- Note: Unvested performance stock units and unexercised stock options do not count towards satisfying stock ownership requirements.

Each executive or non-employee director has 5 years to meet the ownership guidelines starting from when the executive/director first becomes subject to the policy. Executives/directors who do not meet the ownership guidelines after 5 years of being subject to the guidelines are expected to retain 50% of net shares (i.e., shares remaining after payment of taxes) upon vesting or exercise of stock options until they meet the guidelines. Executive and Non-Employee Directors are either already in compliance with the stock ownership guidelines or expected to be within the 5-year timeframe.

Prohibition on Pledging and Hedging

The Company maintains a comprehensive Insider Trading Policy that includes a prohibition on pledging Company securities or holding Company securities in a margin account. Additionally, the policy prohibits engaging in hedging, monetization and similar transactions in respect of Company securities. This policy, applicable to all officers, directors and associates, was put in place to ensure that the interests of these individuals remain aligned with those of stockholders, and that they continue to have the incentive to execute the Company's long-term plans and achieve the performance for which their equity awards are intended.

Employment Agreements and Other Arrangements with Executive Officers and Directors

Employment Agreements

On October 12, 2020, in connection with the execution of the Merger Agreement and the announcement of the Business Combination, Advent entered into employment agreements, with each of Dr. Gregoriou and Mr. Coffey. The material terms of these employment agreements are set forth below:

- Dr. Gregoriou serves as our Chief Executive Officer and Chairman of our board of directors, with an initial annual base salary of \$800,000, a one-time signing bonus of \$500,000, and beginning in fiscal year 2021, eligibility to earn an annual performance bonus with a target equal to 150% of his annual base salary.
- Mr. Coffey serves as our Chief Operating Officer and General Counsel, with an annual base salary of \$475,000, a one-time signing bonus of \$250,000, and beginning in fiscal year 2021, eligibility to earn an annual performance bonus with a target equal to 100% of his annual base salary.

The sign-on bonuses were paid in two installments: (i) 50% on the first payroll date following the consummation of the Business Combination and (ii) 50% on the first payroll date following the one year anniversary of the consummation of the Business Combination, subject to the applicable executive's employment through the relevant payment date.

On August 13, 2021, Advent entered into employment agreement with Mr. Brackman, which was effective as of July 2, 2021 and superseded certain offer letter entered into between the Company and Mr. Brackman dated July 2, 2021. The material terms of this employment agreement are set forth below:

- Mr. Brackman serves as our Chief Financial Officer, with an annual base salary of \$375,000, a one-time relocation expense payment of \$40,000, and beginning in fiscal year 2021, eligibility to earn an annual performance bonus with a target equal to 100% of his annual base salary.

The employment agreements provide that if an executive's employment terminates without "cause" or by him for "good reason," (as such terms are defined in the employment agreement or term sheet, as applicable), the executive will be entitled to (i) up to 12 months' subsidized medical, dental and vision benefits continuation (18 months for Dr. Gregoriou) and (ii) payment of one times (two times for Dr. Gregoriou) the sum of such executive's annual base salary and target bonus, payable over 12 months. If such termination of employment without "cause" or resignation for "good reason" occurs within 60 days prior to, or 12 months following, a "change in control" (as such term is defined in the 2021 Equity Incentive Plan), severance is enhanced and provides for (i) up to 18 months' subsidized medical, dental and vision benefits continuation for all executives, (ii) two times (three times for Dr. Gregoriou) the sum of such executive's annual base salary and target bonus, payable over 12 months, and (iii) the initial grant of stock options and restricted stock units issued pursuant to the 2021 Equity Incentive Plan, shall become fully vested, and such options will remain exercisable for a period of one year following such termination of employment. Moreover, if the acquirer in such "change in control" does not agree to assume or substitute for equivalent stock options, any unvested portion of the initial grant of stock options shall become fully vested and exercisable at the time of such transaction.

The employment agreements for Dr. Gregoriou, Messrs. Coffey and Brackman each contain (i) a perpetual confidentiality covenant, (ii) an assignment of intellectual property covenant, (iii) a non-competition covenant for one year post-termination of employment (subject to, for Dr. Gregoriou, the Executive's receipt of at least 50% of the Executive's highest annualized base salary within the two (2) year period preceding termination) for the entire year, (iv) a covenant not to solicit any of our customers, vendors, suppliers or other business partners during the eighteen (18)-month period following termination and (v) a covenant not to solicit any of our employees or independent contractors during the eighteen (18)-month period following termination.

Non-Competition Agreements

Simultaneously with the execution and delivery of the Merger Agreement, certain insider Advent stockholders entered into non-competition and non-solicitation agreements for the benefit of the Company, Advent and each of their respective present and future affiliates, successors and subsidiaries (each, a "Non-Competition Agreement"), to become effective at the Closing, pursuant to which the Advent stockholder party thereto agreed not to compete with the Company, Advent and their respective affiliates during the three (3) year period following the Closing in North America or the European Union (including Greece) or in any other markets in which the Company and Advent are engaged. The Advent stockholder party thereto also agreed during such three (3) year restricted period to not solicit employees or customers of such entities. The Non-Competition Agreement also contains customary confidentiality and non-disparagement provisions.

Outstanding Equity Awards at Fiscal Year End

The following table provides information with respect to awards held by the named executive officers as of December 31, 2022.

Name	Option Awards				Stock Awards	
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock that Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested (\$) ⁽⁷⁾
Vassilios Gregoriou ⁽¹⁾⁽²⁾	230,530	691,588	\$ 10.36	6/11/2031	691,588	\$ 1,251,774
Vassilios Gregoriou ⁽³⁾⁽⁴⁾	-	175,000	\$ 2.74	7/12/2032	175,000	\$ 316,750
James Coffey ⁽¹⁾⁽²⁾	86,449	259,345	\$ 10.36	6/11/2031	259,345	\$ 469,414
Kevin Brackman ⁽⁵⁾⁽⁶⁾	57,632	172,897	\$ 7.62	8/24/2031	172,897	\$ 312,944

- (1) Option awards vest 25% upon each anniversary of February 4, 2021, the vesting commencement date, until the fourth anniversary of the vesting commencement date.
- (2) Stock awards consist of grants of restricted stock units that vest 25% upon each anniversary of February 4, 2021, the vesting commencement date, until the fourth anniversary of the vesting commencement date.
- (3) Option awards vest 25% upon each anniversary of July 12, 2022, the vesting commencement date, until the fourth anniversary of the vesting commencement date.
- (4) Stock awards consist of grants of restricted stock units that vest 25% upon each anniversary of July 12, 2022, the vesting commencement date, until the fourth anniversary of the vesting commencement date.
- (5) Option awards vest 25% upon each anniversary of August 24, 2021, the vesting commencement date, until the fourth anniversary of the vesting commencement date.
- (6) Stock awards consist of grants of restricted stock units that vest 25% upon each anniversary of August 24, 2021, the vesting commencement date, until the fourth anniversary of the vesting commencement date.
- (7) Market value of restricted stock unit awards is based on the closing price of \$1.81 per share on December 30, 2022 on the Nasdaq Capital Market.

DIRECTOR COMPENSATION

Pursuant to offer letters with each of the Company’s non-employee directors (the “Director Offer Letters”), each director receives an annual retainer of \$100,000, to be paid quarterly in arrears. In addition, each non-employee director is eligible to receive an annual grant of stock awards for a number of shares of Company common stock determined by dividing \$100,000 by the closing price per share of Company common stock on the applicable grant date. While each of Drs. Gregoriou, De Castro, Gourdoupi, and Christos Kaskavelis, the Company’s Chief Marketing Officer, served as members of the board of directors of the Company in 2022, none received additional compensation for director services. Dr. Gregoriou’s compensation earned with respect to his employment with Advent is set forth in the “Summary Compensation Table” above.

The following table sets forth all compensation paid to or earned by each non-employee director of the Company during fiscal year 2022.

Name	Year Ended December 31, 2022		
	Fees Earned or Paid in Cash (\$)	Stock Awards (\$) ⁽¹⁾⁽²⁾	Total (\$)
Angelos Skutaris	\$ 100,000	\$ 100,000	\$ 200,000
Lawrence Epstein ⁽³⁾	\$ 66,667	\$ 100,000	\$ 166,667
Wayne Threatt ⁽⁴⁾	\$ 50,000	\$ 100,000	\$ 150,000
Von McConnell ⁽⁵⁾	\$ 10,000	\$ -	\$ 10,000
Katherine E. Fleming (<i>former director</i>) ⁽⁶⁾	\$ 50,000	\$ -	\$ 50,000
Katrina Fitz (<i>former director</i>) ⁽⁷⁾	\$ 46,945	\$ -	\$ 46,945

(1) The amounts disclosed above reflect the full grant date fair values in accordance with FASB ASC Topic 718. See “Note 17 - Share Based Compensation” to our consolidated financial statements for the year ended December 31, 2022.

(2) On June 15, 2022, the Company granted to each non-employee director a total of 64,516 restricted stock units which vest on June 8, 2023.

(3) Mr. Epstein was appointed as a director of the Company on April 8, 2022.

(4) Mr. Threatt was appointed as a director of the Company on June 8, 2022.

(5) Mr. McConnell was appointed as a director of the Company on November 4, 2022.

(6) Ms. Fleming’s term expired on June 8, 2022.

(7) Ms. Fritz resigned on May 27, 2022.

REPORT OF THE AUDIT COMMITTEE

The information contained in this report shall not be deemed to be “soliciting material” or “filed” or incorporated by reference in future filings with the SEC, or subject to the liabilities of Section 18 of the Exchange Act, except to the extent that the Company specifically incorporates it by reference into a document filed under the Securities Act or the Exchange Act.

We operate in accordance with a written charter adopted by our Board and reviewed annually by the audit committee. We are responsible for overseeing the quality and integrity of Advent Technologies Holdings, Inc.’s accounting, auditing and financial reporting practices. In accordance with the rules of the SEC and Nasdaq, the audit committee is composed entirely of members who are independent, as defined by the listing standards of Nasdaq and Advent Technologies Holdings, Inc.’s Corporate Governance Guidelines. Further, our Board has determined that Mr. Skutaris qualifies as an audit committee financial experts as defined by the rules of the SEC.

The audit committee met four (4) times during fiscal 2022 with the Company’s management and Ernst & Young (Hellas) Certified Auditors Accountants S.A. (“EY”), the Company’s independent registered public accounting firm, including, but not limited to, meetings held to review and discuss the annual audited and quarterly financial statements.

We believe that we fully discharged our oversight responsibilities as described in our charter, including with respect to the audit process. We reviewed and discussed our audited financial statements for the fiscal year ended December 31, 2022, with management and EY. Management has the responsibility for the preparation of Advent Technologies Holdings, Inc.’s financial statements, and EY has the responsibility for the audit of those statements. The Audit Committee discussed with EY the matters required to be discussed by Public Company Accounting Oversight Board, or PCAOB, Auditing Standard No. 1301 and the SEC. We received the written disclosures and the letter from EY pursuant to Rule 3526, Communication with Audit Committees Concerning Independence, of the PCAOB, concerning any relationships between EY and Advent Technologies Holdings, Inc. and the potential effects of any disclosed relationships on EY’s independence, and discussed with EY its independence. We reviewed with EY their audit plans, audit scope, identification of audit risks and their audit efforts, and discussed and reviewed the results of EY’s examination of Advent Technologies Holdings, Inc.’s financial statements both with and without management.

The Audit Committee considered any fees paid to EY for the provision of non-audit related services and does not believe that these fees compromise EY’s independence in performing the audit.

Based on these reviews and discussions with management and EY, we approved the inclusion of Advent Technologies Holdings, Inc.’s audited financial statements in its Annual Report on Form 10-K for the fiscal year ended December 31, 2022 for filing with the SEC.

On April 11, 2023, we approved the engagement of EY as the independent registered public accounting firm for the fiscal year ended December 31, 2023, subject to ratification by Advent Technologies Holdings, Inc.’s stockholders.

Respectfully Submitted,

Audit Committee

Angelos Skutaris

Lawrence Epstein

Wayne Threatt

The Report of the Audit Committee should not be deemed filed or incorporated by reference into any other filing of the Company under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent the Company specifically incorporates the Report of the Audit Committee therein by reference.

CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

There have been no transactions since January 1, 2022 to which we have been a participant in which the amount involved, exceeded or will exceed \$120,000, and in which any of our directors, executive officers or holders of more than 5% of our capital stock, or any members of their immediate family, had or will have a direct or indirect material interest, other than compensation arrangements which are described under “Executive Compensation” and “Director Compensation” sections.

DELINQUENT SECTION 16(A) REPORTS

Section 16(a) of the Exchange Act requires the Company’s directors and executive officers and persons who beneficially own more than 10% of the Company’s common stock to file with the SEC reports showing initial ownership of and changes in ownership of the Company’s common stock and other registered equity securities. Based solely upon our review of the copies of such forms or written representations from certain reporting persons received by us with respect to fiscal year 2022, the Company believes that its directors and executive officers and persons who own more than 10% of a registered class of its equity securities have complied with all applicable Section 16(a) filing requirements for fiscal year 2022, except for the following: Vassilios Gregoriou did not timely file two Form 4s reporting four transactions; James F. Coffey did not timely file one Form 4 reporting one transaction; Emory De Castro did not timely file one Form 4 reporting one transaction; and Nora Gourdoupi did not timely file one Form 3 and one Form 4 reporting one transaction.

STOCKHOLDER PROPOSALS FOR 2024 ANNUAL MEETING

Requirements for Stockholder Proposals to be Considered for Inclusion in our Proxy Materials. To be considered for inclusion in next year’s proxy statement, stockholder proposals pursuant to Rule 14a-8 under the Exchange Act must be received by our Corporate Secretary, at Advent Technologies Holdings, Inc., 500 Rutherford Avenue Suite 102, Boston, MA 02129 no later than December 30, 2023, which is 120 days prior to April 28, 2024.

Requirements for Stockholder Proposals or Director Nominations to be Brought Before an Annual Meeting. Our amended and restated bylaws provide that, for stockholder nominations to our Board or other proposals to be considered at an annual meeting, the stockholder must have given timely notice thereof in writing to the Corporate Secretary, at Advent Technologies Holdings, Inc., 500 Rutherford Ave Suite 102, Boston, MA 02129. To be timely for the 2024 annual meeting, the stockholder’s notice must be delivered to or mailed and received by us not before February 13, 2024 or after March 15, 2024, which is not more than one hundred twenty (120) days, and not less than ninety (90) days before the anniversary date of the preceding annual meeting, except that if the 2024 annual meeting of stockholders is more than thirty (30) days before or after the anniversary date of the previous year’s annual meeting, we must receive the notice on or before ten (10) days after the day on which the date of the 2024 annual meeting is first disclosed in a public announcement. Such notice must provide the information required by our amended and restated bylaws with respect to each matter the stockholder proposes to bring before the 2024 annual meeting.

Universal Proxy. In addition to satisfying the foregoing requirements under the Company’s bylaws, to comply with the universal proxy rules, stockholders who intend to solicit proxies in support of director nominees other than the Company’s nominees must provide notice that sets forth the information required by Rule 14a-19 under the Exchange Act no later than April 14, 2024.

ANNUAL REPORT

Upon written request, the Company will provide without charge to each stockholder who does not otherwise receive a copy of the Company's annual report to stockholders a copy of the Company's Annual Report on Form 10-K which was required to be filed with the SEC for the fiscal year ended December 31, 2022. Please address all requests to:

Advent Technologies Holdings, Inc.
Attn: James F. Coffey, Corporate Secretary
500 Rutherford Avenue, Suite 102
Boston, MA 02129

**IMPORTANT NOTICE REGARDING THE INTERNET AVAILABILITY OF PROXY MATERIALS FOR
THE 2023 ANNUAL MEETING**

The SEC's e-proxy rules require companies to post their proxy materials on the Internet and permit them to provide only a Notice of Internet Availability of Proxy Materials to stockholders. The Company's Proxy Statement for the 2023 Annual Meeting of Stockholders, Proxy Card and Annual Report to Stockholders for the fiscal year ended December 31, 2022 are available at www.advent.energy/Investors.

We are mailing a full set of our printed proxy materials to stockholders on or about April 28, 2023. On this date, all stockholders of record and beneficial owners will have the ability to access all of the proxy materials on the website at www.advent.energy.

HOUSEHOLDING OF PROXY MATERIALS

SEC rules concerning the delivery of annual disclosure documents allow us or your broker to send a single set of our proxy materials to any household at which two or more of our stockholders reside, if we or your broker believe that the stockholders are members of the same family, unless we have received contrary instructions from one or more of the stockholders. This practice, referred to as "householding," benefits both you and us. It reduces the volume of duplicate information received at your household and helps to reduce our expenses. The rule applies to our notices, annual reports, proxy statements and information statements.

We will undertake to deliver promptly, upon written or oral request, a separate copy to a stockholder at a shared address to which a single copy of proxy materials was delivered. You may make a written or oral request by sending a notification to our Corporate Secretary at the address above, providing your name, your shared address, and the address to which we should direct the additional copy of proxy materials. Multiple stockholders sharing an address who have received one copy of a mailing and would prefer us to mail each stockholder a separate copy of future mailings should contact us at our principal executive offices. Additionally, if current stockholders with a shared address received multiple copies of a mailing and would prefer us to mail one copy of future mailings to stockholders at the shared address, notification of that request may also be made through our principal executive offices. Stockholders who participate in householding will continue to have access to and utilize separate proxy voting instructions.

OTHER BUSINESS

The Board of Directors does not know of any other matter to be acted upon at the annual meeting. However, if any other matter shall properly come before the annual meeting, the proxy holders named in the proxy accompanying this proxy statement will have authority to vote all proxies in accordance with their discretion.

By order of the Board of Directors

/s/ Vassilios Gregoriou

Vassilios Gregoriou

Chairman, Chief Executive Officer and Director

Dated: April 24, 2023
Boston, Massachusetts

Appendix A

**CERTIFICATE OF AMENDMENT
TO THE
SECOND AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF
ADVENT TECHNOLOGIES HOLDINGS, INC.
(a Delaware corporation)**

ADVENT TECHNOLOGIES HOLDINGS, INC., a corporation organized and existing under the laws of the State of Delaware (the "Corporation"), hereby certifies as follows:

FIRST: The name of the Corporation is Advent Technologies Holdings, Inc. The original Certificate of Incorporation of the Corporation was filed with the Secretary of the State of Delaware on June 18, 2018; an Amended and Restated Certificate of Incorporation of the Corporation was filed on November 15, 2018; a Certificate of Amendment to such Amended and Restated Certificate of Incorporation of the Corporation was filed on May 19, 2019; and a further Certificate of Amendment to such Amended and Restated Certificate of Incorporation of the Corporation was filed on October 16, 2020. The Second Amended and Restated Certificate of Incorporation of the Corporation was filed on February 4, 2021 (the "Current Certificate").

SECOND: Pursuant to Section 242 of the Delaware General Corporation Law (the "DGCL") the Board of Directors of the Corporation has duly adopted, and the stockholders of the Corporation have approved the amendments to the Current Certificate set forth in this Certificate of Amendment.

THIRD: Pursuant to Section 242 of the DGCL, subsection (a) of Article IV of the Current Certificate is hereby amended and restated as follows:

Authorized Shares. The total number of shares of stock which the Corporation shall have authority to issue is 501,000,000 shares, consisting of 500,000,000 shares of Common Stock, par value \$0.0001 per share ("Common Stock"), and 1,000,000 shares of Preferred Stock, par value \$0.0001 per share ("Preferred Stock").

FOURTH: This Certificate of Amendment shall be effective upon filing with the Secretary of State of the State of Delaware.

[Signature page follows.]

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment to be executed by its duly authorized officer this _____ day of _____, 2023.

ADVENT TECHNOLOGIES HOLDINGS, INC.

By: _____
Name:
Title:

Appendix B

**CERTIFICATE OF AMENDMENT
TO THE
SECOND AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF
ADVENT TECHNOLOGIES HOLDINGS, INC.
(a Delaware corporation)**

ADVENT TECHNOLOGIES HOLDINGS, INC., a corporation organized and existing under the laws of the State of Delaware (the "Corporation"), hereby certifies as follows:

FIRST: The name of the Corporation is Advent Technologies Holdings, Inc. The original Certificate of Incorporation of the Corporation was filed with the Secretary of the State of Delaware on June 18, 2018; an Amended and Restated Certificate of Incorporation of the Corporation was filed on November 15, 2018; a Certificate of Amendment to such Amended and Restated Certificate of Incorporation of the Corporation was filed on May 19, 2019; and a further Certificate of Amendment to such Amended and Restated Certificate of Incorporation of the Corporation was filed on October 16, 2020. The Second Amended and Restated Certificate of Incorporation of the Corporation was filed on February 4, 2021 (the "Current Certificate").

SECOND: Pursuant to Section 242 of the Delaware General Corporation Law (the "DGCL"), the Board of Directors of the Corporation has duly adopted, and the stockholders of the Corporation have approved the amendments to the Current Certificate set forth in this Certificate of Amendment.

THIRD: Pursuant to Section 242 of the DGCL, subsection (a) of Article VI of the Current Certificate is hereby amended and restated as follows:

(a) Limitation of Director or Officer Liability.¹ To the fullest extent that the DGCL or any other law of the State of Delaware (as they exist on the date hereof or as they may hereafter be amended) permits the limitation or elimination of the liability of directors **or officers**, no director **or officer** of the Corporation shall be liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director **or an officer**. No amendment to, or modification or repeal of, this Article VI shall adversely affect any right or protection of a director **or an officer** of the Corporation existing hereunder with respect to any act or omission occurring prior to such amendment, modification or repeal.

FOURTH: This Certificate of Amendment shall be effective upon filing with the Secretary of State of the State of Delaware.

[Signature page follows.]

¹ Additions to the Current Certificate pursuant to this amendment by Proposal No. 3 are indicated by bold, underlined text and deletions contemplated thereby are indicated below by strike-out text.

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment to be executed by its duly authorized officer this _____ day of _____, 2023.

ADVENT TECHNOLOGIES HOLDINGS, INC.

By: _____
Name:
Title:

Appendix C

Execution Version

PURCHASE AGREEMENT

THIS PURCHASE AGREEMENT (the “Agreement”), dated as of April 10, 2023, is made by and between **ADVENT TECHNOLOGIES HOLDINGS, INC.**, a Delaware corporation (the “Company”), and **LINCOLN PARK CAPITAL FUND, LLC**, an Illinois limited liability company (the “Investor”).

WHEREAS:

Subject to the terms and conditions set forth in this Agreement, the Company wishes to sell to the Investor, and the Investor wishes to buy from the Company, up to Fifty Million Dollars (\$50,000,000) of the Company’s common stock, \$0.0001 par value per share (the “Common Stock”). The shares of Common Stock to be purchased hereunder are referred to herein as the “Purchase Shares.”

NOW THEREFORE, in consideration of the mutual covenants contained in this Agreement, and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Company and the Investor hereby agree as follows:

1. CERTAIN DEFINITIONS.

For purposes of this Agreement, the following terms shall have the following meanings:

(a) “Accelerated Purchase Date” means, with respect to any Accelerated Purchase made pursuant to Section 2(b) hereof, the Business Day immediately following the applicable Purchase Date with respect to the corresponding Regular Purchase referred to in Section 2(b) hereof.

(b) “Accelerated Purchase Minimum Price Threshold” means, with respect to any Accelerated Purchase made pursuant to Section 2(b) hereof, any minimum per share price threshold set forth by the Company in the applicable Accelerated Purchase Notice.

(c) “Accelerated Purchase Notice” means, with respect to any Accelerated Purchase made pursuant to Section 2(b) hereof, an irrevocable written notice from the Company to the Investor directing the Investor to purchase the applicable Accelerated Purchase Share Amount at the Accelerated Purchase Price on the Accelerated Purchase Date for such Accelerated Purchase in accordance with this Agreement, and specifying any Accelerated Purchase Minimum Price Threshold determined by the Company.

(d) “Accelerated Purchase Price” means, with respect to any Accelerated Purchase made pursuant to Section 2(b) hereof, ninety-five percent (95%) of the lesser of (i) the VWAP for the period beginning at 9:30:01 a.m., Eastern time, on the applicable Accelerated Purchase Date, or such other time publicly announced by the Principal Market as the official open (or commencement) of trading on the Principal Market on such applicable Accelerated Purchase Date (the “Accelerated Purchase Commencement Time”), and ending at the earliest of (A) 4:00:00 p.m., Eastern time, on such applicable Accelerated Purchase Date, or such other time publicly announced by the Principal Market as the official close of trading on the Principal Market on such applicable Accelerated Purchase Date, (B) such time, from and after the Accelerated Purchase Commencement Time for such Accelerated Purchase, that the total number (or volume) of shares of Common Stock traded on the Principal Market has exceeded the applicable Accelerated Purchase Share Volume Maximum, and (C) such time, from and after the Accelerated Purchase Commencement Time for such Accelerated Purchase, that the Sale Price has fallen below the applicable Accelerated Purchase Minimum Price Threshold (such earliest of (i)(A), (i)(B) and (i)(C) above, the “Accelerated Purchase Termination Time”), and (ii) the Closing Sale Price of the Common Stock on such applicable Accelerated Purchase Date (to be appropriately adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction).

(e) “Accelerated Purchase Share Amount” means, with respect to any Accelerated Purchase made pursuant to Section 2(b) hereof, the number of Purchase Shares directed by the Company to be purchased by the Investor in an Accelerated Purchase Notice, which number of Purchase Shares shall not exceed the lesser of (i) 300% of the number of Purchase Shares directed by the Company to be purchased by the Investor pursuant to the corresponding Regular Purchase Notice for the corresponding Regular Purchase referred to in Section 2(b) hereof (subject to the Purchase Share limitations contained in Section 2(a) hereof) and (ii) an amount equal to (A) the Accelerated Purchase Share Percentage multiplied by (B) the total number (or volume) of shares of Common Stock traded on the Principal Market during the period on the applicable Accelerated Purchase Date beginning at the Accelerated Purchase Commencement Time for such Accelerated Purchase and ending at the Accelerated Purchase Termination Time for such Accelerated Purchase.

(f) “Accelerated Purchase Share Percentage” means, with respect to any Accelerated Purchase made pursuant to Section 2(b) hereof, thirty percent (30%).

(g) “Accelerated Purchase Share Volume Maximum” means, with respect to any Accelerated Purchase made pursuant to Section 2(b) hereof, a number of shares of Common Stock equal to (i) the applicable Accelerated Purchase Share Amount properly directed by the Company to be purchased by the Investor in the applicable Accelerated Purchase Notice for such Accelerated Purchase, divided by (ii) the Accelerated Purchase Share Percentage (to be appropriately adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction).

(h) “Additional Accelerated Purchase Date” means, with respect to any Additional Accelerated Purchase made pursuant to Section 2(c) hereof, the Business Day (i) that is the Accelerated Purchase Date with respect to the corresponding Accelerated Purchase referred to in Section 2(b) hereof and (ii) on which the Investor receives, prior to 1:00 p.m., Eastern time, on such Business Day, a valid Additional Accelerated Purchase Notice for such Additional Accelerated Purchase in accordance with this Agreement.

(i) “Additional Accelerated Purchase Minimum Price Threshold” means, with respect to any Additional Accelerated Purchase made pursuant to Section 2(c) hereof, any minimum per share price threshold set forth by the Company in the applicable Additional Accelerated Purchase Notice.

(j) “Additional Accelerated Purchase Notice” means, with respect to any Additional Accelerated Purchase made pursuant to Section 2(c) hereof, an irrevocable written notice from the Company to the Investor directing the Investor to purchase the applicable Additional Accelerated Purchase Share Amount at the Additional Accelerated Purchase Price for such Additional Accelerated Purchase in accordance with this Agreement, and specifying any Additional Accelerated Purchase Minimum Price Threshold determined by the Company.

(k) “Additional Accelerated Purchase Price” means, with respect to any Additional Accelerated Purchase made pursuant to Section 2(c) hereof, ninety-five percent (95%) of the lesser of (i) the VWAP for the period on the applicable Additional Accelerated Purchase Date, beginning at the latest of (A) the applicable Accelerated Purchase Termination Time with respect to the corresponding Accelerated Purchase referred to in Section 2(c) hereof on such Additional Accelerated Purchase Date, (B) the applicable Additional Accelerated Purchase Termination Time with respect to the most recently completed prior Additional Accelerated Purchase on such Additional Accelerated Purchase Date, as applicable, and (C) the time at which all Purchase Shares subject to all prior Accelerated Purchases and Additional Accelerated Purchases (as applicable), including, without limitation, those that have been effected on the same Business Day as the applicable Additional Accelerated Purchase Date with respect to which the applicable Additional Accelerated Purchase relates, have theretofore been received by the Investor as DWAC Shares in accordance with this Agreement (such latest of (i)(A), (i)(B) and (i)(C) above, the “Additional Accelerated Purchase Commencement Time”), and ending at the earliest of (X) 4:00 p.m., Eastern time, on such Additional Accelerated Purchase Date, or such other time publicly announced by the Principal Market as the official close of trading on the Principal Market on such Additional Accelerated Purchase Date, (Y) such time, from and after the Additional Accelerated Purchase Commencement Time for such Additional Accelerated Purchase, that the total number (or volume) of shares of Common Stock traded on the Principal Market has exceeded the applicable Additional Accelerated Purchase Share Volume Maximum, and (Z) such time, from and after the Additional Accelerated Purchase Commencement Time for such Additional Accelerated Purchase, that the Sale Price has fallen below the applicable Additional Accelerated Purchase Minimum Price Threshold (such earliest of (i)(X), (i)(Y) and (i)(Z) above, the “Additional Accelerated Purchase Termination Time”), and (ii) the Closing Sale Price of the Common Stock on such Additional Accelerated Purchase Date (to be appropriately adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction).

(l) “Additional Accelerated Purchase Share Amount” means, with respect to any Additional Accelerated Purchase made pursuant to Section 2(c) hereof, the number of Purchase Shares directed by the Company to be purchased by the Investor on an Additional Accelerated Purchase Notice, which number of Purchase Shares shall not exceed the lesser of (i) 300% of the number of Purchase Shares directed by the Company to be purchased by the Investor pursuant to the corresponding Regular Purchase Notice for the corresponding Regular Purchase referred to in Section 2(c) hereof (subject to the Purchase Share limitations contained in Section 2(a) hereof) and (ii) an amount equal to (A) the Additional Accelerated Purchase Share Percentage multiplied by (B) the total number (or volume) of shares of Common Stock traded on the Principal Market during the period on the applicable Additional Accelerated Purchase Date beginning at the Additional Accelerated Purchase Commencement Time for such Additional Accelerated Purchase and ending at the Additional Accelerated Purchase Termination Time for such Additional Accelerated Purchase.

(m) “Additional Accelerated Purchase Share Percentage” means, with respect to any Additional Accelerated Purchase made pursuant to Section 2(c) hereof, thirty percent (30%).

(n) “Additional Accelerated Purchase Share Volume Maximum” means, with respect to any Additional Accelerated Purchase made pursuant to Section 2(c) hereof, a number of shares of Common Stock equal to (i) the applicable Additional Accelerated Purchase Share Amount properly directed by the Company to be purchased by the Investor in the applicable Additional Accelerated Purchase Notice for such Additional Accelerated Purchase, divided by (ii) the Additional Accelerated Purchase Share Percentage (to be appropriately adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction).

(o) “Alternate Adjusted Regular Purchase Share Limit” means, with respect to a Regular Purchase made pursuant to Section 2(a) hereof, the maximum number of Purchase Shares which, taking into account the applicable per share Purchase Price therefor calculated in accordance with this Agreement, would enable the Company to deliver to the Investor, on the applicable Purchase Date for such Regular Purchase, a Regular Purchase Notice for a Purchase Amount equal to, or as closely approximating without exceeding, One Hundred Fifty Thousand Dollars (\$150,000).

(p) “Applicable Laws” means, with respect to any Person, the common law and any federal, provincial, state, territorial, local, foreign, multinational or international laws, statutes, codes, treaties, standards, rules and regulations, guidelines, ordinances, orders, judgments, writs, injunctions, decrees or settlement agreements (including administrative or judicial precedents or authorities) and the interpretation or administration thereof by, and other determinations, directives, requirements or requests of, any governmental authority, in each case whether or not having the force of law and, in each case, that are applicable to or binding upon such Person or any of its property or to which such Person or any of its property is subject.

(q) “Available Amount” means, initially, Fifty Million Dollars (\$50,000,000) in the aggregate, which amount shall be reduced by the Purchase Amount each time the Investor purchases shares of Common Stock pursuant to Section 2 hereof.

(r) “Bankruptcy Law” means Title 11, U.S. Code, or any similar federal or state law for the relief of debtors.

(s) “Business Day” means any day on which the Principal Market is open for trading, including any day on which the Principal Market is open for trading for a period of time less than the customary time.

(t) “Bylaws” means the Company’s Amended and Restated Bylaws.

(u) “Charter” means the Company’s Second Amended and Restated Certificate of Incorporation, as amended.

(v) “Closing Sale Price” means, for any security as of any date, the last closing sale price for such security on the Principal Market as reported by the Principal Market.

(w) “Commitment Shares” has the meaning set forth in Section 5(e).

(x) “Confidential Information” means any information disclosed by either party to the other party, either directly or indirectly, in writing, orally or by inspection of tangible objects (including, without limitation, documents, prototypes, samples, plant and equipment), which by its nature is confidential or proprietary and would be judged so under a reasonable standard or is disclosed or provided under circumstances reasonably indicating it is confidential or proprietary, regardless of whether the information is designated, either orally or in writing, as “Confidential,” “Proprietary” or some similar designation. Confidential Information may also include information disclosed to a disclosing party by third parties. Confidential Information shall not, however, include any information which (i) was publicly known and made generally available in the public domain prior to the time of disclosure by the disclosing party; (ii) becomes publicly known and made generally available after disclosure by the disclosing party to the receiving party through no action or inaction of the receiving party; (iii) is already in the possession of the receiving party without confidential restriction at the time of disclosure by the disclosing party as shown by the receiving party’s files and records immediately prior to the time of disclosure; (iv) is obtained by the receiving party from a third party and is not known by the receiving party to be a breach of such third party’s obligations of confidentiality; or (v) is independently developed by the receiving party without use of or reference to the disclosing party’s Confidential Information, as shown by documents and other competent evidence in the receiving party’s possession.

(y) “Custodian” means any receiver, trustee, assignee, liquidator or similar official under any Bankruptcy Law.

(z) “DTC” means The Depository Trust Company, or any successor performing substantially the same function for the Company.

(aa) “DWAC Shares” means shares of Common Stock that are (i) issued in electronic form, (ii) freely tradable and transferable and without restriction on resale and (iii) timely credited by the Company, once a DWAC notice is received, to the Investor’s or its designee’s specified Deposit/Withdrawal at Custodian (DWAC) account with DTC under its Fast Automated Securities Transfer (FAST) Program, or any similar program hereafter adopted by DTC performing substantially the same function.

(bb) “Exchange Act” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(cc) “Fully Adjusted Regular Purchase Share Limit” means, with respect to any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction from and after the date of this Agreement, the Regular Purchase Share Limit (as defined in Section 2(a) hereof) in effect on the applicable date of determination, after giving effect to the full proportionate adjustment thereto made pursuant to Section 2(a) hereof for or in respect of such reorganization, recapitalization, non-cash dividend, stock split or other similar transaction.

(dd) “Material Adverse Effect” means any material adverse effect on (i) the enforceability of any Transaction Document, (ii) the results of operations, operations, assets, business or financial condition of the Company and its Subsidiaries, taken as a whole, other than any material adverse effect that resulted exclusively from (A) any change in the United States or foreign economies or securities or financial markets in general that does not have a disproportionate effect on the Company and its Subsidiaries, taken as a whole, (B) any change that generally affects the industry in which the Company and its Subsidiaries operate that does not have a disproportionate effect on the Company and its Subsidiaries, taken as a whole, (C) any change arising in connection with earthquakes, hostilities, acts of war, civil unrest, sabotage or terrorism or military actions or any escalation or material worsening of any such hostilities, acts of war, civil unrest, sabotage or terrorism or military actions existing as of the date hereof that does not have a materially disproportionate effect on the Company and its Subsidiaries, taken as a whole, (D) any action taken by the Investor, its affiliates or its or their successors and assigns with respect to the transactions contemplated by this Agreement, (E) the effect of any change in Applicable Laws or accounting rules that does not have a disproportionate effect on the Company and its Subsidiaries, taken as a whole, or (F) any change resulting from compliance with terms of this Agreement or the consummation of the transactions contemplated by this Agreement, or (iii) the Company’s ability to perform in any material respect on a timely basis its obligations under any Transaction Document to be performed as of the date of determination.

(ee) “Maturity Date” means the first day of the month immediately following the thirty-six (36) month anniversary of the Commencement Date.

(ff) “PEA Period” means the period commencing at 9:30 a.m., Eastern time, on the tenth (10th) Business Day immediately prior to the filing of any post-effective amendment to the Registration Statement (as defined herein) or New Registration Statement (as such term is defined in the Registration Rights Agreement), and ending at 9:30 a.m., Eastern time, on the Business Day immediately following, the effective date of any post-effective amendment to the Registration Statement (as defined herein) or New Registration Statement (as such term is defined in the Registration Rights Agreement).

(gg) “Person” means an individual or entity including but not limited to any limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization and a government or any department or agency thereof.

(hh) “Principal Market” means The Nasdaq Capital Market (or any nationally recognized successor thereto); provided, however, that in the event the Company’s Common Stock is at any time not listed on The Nasdaq Capital Market (or any nationally recognized successor thereto) but is listed or traded on The Nasdaq Global Select Market, The Nasdaq Global Market, the New York Stock Exchange, the NYSE American, the NYSE Arca, the OTC Bulletin Board, or the OTCQX or OTCQB operated by the OTC Markets Group, Inc. (or any nationally recognized successor to any of the foregoing), then the “Principal Market” shall mean such other market or exchange which then constitutes the principal trading market for the Company’s Common Stock.

(ii) “Purchase Amount” means, with respect to any Regular Purchase, any Accelerated Purchase, or any Additional Accelerated Purchase made hereunder, as applicable, the portion of the Available Amount to be purchased by the Investor pursuant to Section 2 hereof.

(jj) “Purchase Date” means, with respect to a Regular Purchase made pursuant to Section 2(a) hereof, the Business Day on which the Investor receives, after 4:00 p.m., Eastern time, but prior to 6:00 p.m., Eastern time, on such Business Day, a valid Regular Purchase Notice for such Regular Purchase in accordance with this Agreement.

(kk) “Purchase Price” means, with respect to a Regular Purchase made pursuant to Section 2(a) hereof, the lower of: (i) the lowest Sale Price on the Purchase Date for such Regular Purchase or (ii) the arithmetic average of the three (3) lowest Closing Sale Prices for the Common Stock during the ten (10) consecutive Business Days ending on the Business Day immediately preceding such Purchase Date for such Regular Purchase (in each case, to be appropriately adjusted for any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction that occurs on or after the date of this Agreement).

(ll) “Registration Rights Agreement” means that certain Registration Rights Agreement, of even date herewith between the Company and the Investor.

(mm) “Registration Statement” has the meaning set forth in the Registration Rights Agreement.

(nn) “Regular Purchase Notice” means, with respect to a Regular Purchase pursuant to Section 2(a) hereof, an irrevocable written notice from the Company to the Investor directing the Investor to buy a specified number of Purchase Shares (subject to the Purchase Share limitations contained in Section 2(a) hereof) at the applicable Purchase Price for such Regular Purchase in accordance with this Agreement.

(oo) “Sale Price” means any trade price for the shares of Common Stock on the Principal Market as reported by the Principal Market.

(pp) “SEC” means the U.S. Securities and Exchange Commission.

(qq) “Securities” means, collectively, the Purchase Shares and the Commitment Shares (as defined below).

(rr) “Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

(ss) “Subsidiary” means any Person the Company wholly-owns or controls, or in which the Company, directly or indirectly, owns a majority of the voting stock or similar voting interest, in each case that is required to be disclosed pursuant to Item 601(b)(21) of Regulation S-K promulgated under the Securities Act.

(tt) “Transaction Documents” means, collectively, this Agreement and the schedules and exhibits hereto, the Registration Rights Agreement and the schedules and exhibits thereto.

(uu) “Transfer Agent” means Continental Stock Transfer & Trust Company or such other Person who is then serving as the transfer agent for the Company in respect of the Common Stock.

(vv) “VWAP” means in respect of an Accelerated Purchase Date and an Additional Accelerated Purchase Date, as applicable, the volume weighted average price of the Common Stock on the Principal Market, as reported on the Principal Market.

2. PURCHASE OF COMMON STOCK.

Subject to the terms and conditions set forth in this Agreement, the Company has the right, but not the obligation to sell to the Investor, in the Company’s sole and absolute discretion, and the Investor has the obligation to purchase from the Company, Purchase Shares as follows:

(a) Commencement of Regular Sales of Common Stock. Beginning one Business Day following the satisfaction of the conditions set forth in Sections 7 and 8 hereof (the “Commencement” and the date of satisfaction of such conditions the “Commencement Date”) and thereafter, the Company shall have the right, but not the obligation, to direct the Investor, by its delivery to the Investor of a Regular Purchase Notice from time to time, to purchase up to Two Hundred Thousand (200,000) Purchase Shares, provided that the Closing Sale Price of the Common Stock on the applicable Purchase Date is not below \$0.50 and subject to adjustment as set forth below in this Section 2(a) (such maximum number of Purchase Shares, as may be adjusted from time to time, the “Regular Purchase Share Limit”), at the Purchase Price on the Purchase Date (each such purchase a “Regular Purchase”); provided, however, that the Regular Purchase Share Limit shall be increased to: (i) up to Two Hundred and Fifty Thousand (250,000) Purchase Shares, if the Closing Sale Price of the Common Stock on the applicable Purchase Date is not below \$1.50, (ii) up to Three Hundred Thousand (300,000) Purchase Shares, if the Closing Sale Price of the Common Stock on the applicable Purchase Date is not below \$3.00, and (iii) up to Four Hundred Thousand (400,000) Purchase Shares, if the Closing Sale Price of the Common Stock on the applicable Purchase Date is not below \$5.00 (all of which share and dollar amounts shall be appropriately proportionately adjusted for any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction); provided that if, after giving effect to the full proportionate adjustment to the Regular Purchase Share Limit therefor, the Fully Adjusted Regular Purchase Share Limit then in effect would preclude the Company from delivering to the Investor a Regular Purchase Notice hereunder for a Purchase Amount (calculated by multiplying (X) the number of Purchase Shares equal to the Fully Adjusted Regular Purchase Share Limit, by (Y) the Purchase Price per Purchase Share covered by such Regular Purchase Notice on the applicable Purchase Date therefor) equal to or greater than the Alternate Adjusted Regular Purchase Share Limit, the Regular Purchase Share Limit for such Regular Purchase Notice shall not be fully adjusted to equal the applicable Fully Adjusted Regular Purchase Share Limit, but rather the Regular Purchase Share Limit for such Regular Purchase Notice shall be adjusted to equal the applicable Alternate Adjusted Regular Purchase Share Limit as of the applicable Purchase Date for such Regular Purchase Notice; and provided, further, however, that the Investor’s committed obligation under any single Regular Purchase, other than any Regular Purchase with respect to which an Alternate Adjusted Regular Purchase Share Limit shall apply, shall not exceed Two Million Five Hundred Thousand Dollars (\$2,500,000). If the Company delivers any Regular Purchase Notice for a Purchase Amount in excess of the limitations contained in the immediately preceding sentence, such Regular Purchase Notice shall be void ab initio only with respect to the extent of the amount by which the number of Purchase Shares set forth in such Regular Purchase Notice exceeds the number of Purchase Shares which the Company is permitted to include in such Purchase Notice in accordance herewith, and the Investor shall have no obligation to purchase such excess Purchase Shares in respect of such Regular Purchase Notice; provided, however, that the Investor shall remain obligated to purchase the number of Purchase Shares which the Company is permitted to include in such Regular Purchase Notice. The Company may deliver a Regular Purchase Notice to the Investor multiple times on the same Business Day, provided the Company has not failed to deliver Purchase Shares for the most recent prior Regular Purchase. Notwithstanding the foregoing, the Company shall not deliver any Regular Purchase Notices during the PEA Period.

(b) Accelerated Purchases. Subject to the terms and conditions of this Agreement, from and after one (1) Business Day following the Commencement Date, in addition to purchases of Purchase Shares as described in Section 2(a) above, the Company shall also have the right, but not the obligation, to direct the Investor, by its delivery to the Investor of an Accelerated Purchase Notice from time to time in accordance with this Agreement, to purchase the applicable Accelerated Purchase Share Amount at the Accelerated Purchase Price on the Accelerated Purchase Date therefor in accordance with this Agreement (each such purchase, an “Accelerated Purchase”). The Company may deliver an Accelerated Purchase Notice to the Investor only on a Purchase Date on which the Company also properly submitted a Regular Purchase Notice providing for a Regular Purchase of a number of Purchase Shares not less than the Regular Purchase Share Limit then in effect on such Purchase Date in accordance with this Agreement (including, without limitation, giving effect to any automatic increase to the Regular Purchase Share Limit as a result of the Closing Sale Price of the Common Stock exceeding certain thresholds set forth in Section 2(a) above on such Purchase Date and any other adjustments to the Regular Purchase Share Limit, in each case pursuant to Section 2(a) above). If the Company delivers any Accelerated Purchase Notice directing the Investor to purchase an amount of Purchase Shares that exceeds the Accelerated Purchase Share Amount that the Company is then permitted to include in such Accelerated Purchase Notice, such Accelerated Purchase Notice shall be void *ab initio* only with respect to the extent of the amount by which the number of Purchase Shares set forth in such Accelerated Purchase Notice exceeds the Accelerated Purchase Share Amount that the Company is then permitted to include in such Accelerated Purchase Notice (which shall be confirmed in an Accelerated Purchase Confirmation), and the Investor shall have no obligation to purchase such excess Purchase Shares in respect of such Accelerated Purchase Notice; provided, however, that the Investor shall remain obligated to purchase the Accelerated Purchase Share Amount which the Company is permitted to include in such Accelerated Purchase Notice. Within one (1) Business Day after completion of each Accelerated Purchase Date for an Accelerated Purchase, the Investor will provide to the Company a written confirmation of such Accelerated Purchase setting forth the applicable Accelerated Purchase Share Amount and Accelerated Purchase Price for such Accelerated Purchase (each, an “Accelerated Purchase Confirmation”). Notwithstanding the foregoing, the Company shall not deliver any Accelerated Purchase Notices during the PEA Period.

(c) Additional Accelerated Purchases. Subject to the terms and conditions of this Agreement, from and after one (1) Business Day following the Commencement Date, in addition to purchases of Purchase Shares as described in Section 2(a) and Section 2(b) above, the Company shall also have the right, but not the obligation, to direct the Investor, by its timely delivery to the Investor of an Additional Accelerated Purchase Notice on an Additional Accelerated Purchase Date in accordance with this Agreement, to purchase the applicable Additional Accelerated Purchase Share Amount at the applicable Additional Accelerated Purchase Price therefor in accordance with this Agreement (each such purchase, an “Additional Accelerated Purchase”). The Company may deliver multiple Additional Accelerated Purchase Notices to the Investor on an Additional Accelerated Purchase Date; provided, however, that the Company may deliver an Additional Accelerated Purchase Notice to the Investor only (i) on a Business Day that is also the Accelerated Purchase Date for an Accelerated Purchase with respect to which the Company properly submitted to the Investor an Accelerated Purchase Notice in accordance with this Agreement on the applicable Purchase Date for a Regular Purchase of a number of Purchase Shares not less than the Regular Purchase Share Limit then in effect in accordance with this Agreement (including, without limitation, giving effect to any automatic increase to the Regular Purchase Share Limit as a result of the Closing Sale Price of the Common Stock exceeding certain thresholds set forth in Section 2(a) above on such Purchase Date and any other adjustments to the Regular Purchase Share Limit, in each case pursuant to Section 2(a) above), and (ii) if all Purchase Shares subject to all prior Regular Purchases, Accelerated Purchases and Additional Accelerated Purchases, including, without limitation, those that have been effected on the same Business Day as the applicable Additional Accelerated Purchase Date with respect to which the applicable Additional Accelerated Purchase relates, in each case have theretofore been received by the Investor as DWAC Shares in accordance with this Agreement. If the Company delivers any Additional Accelerated Purchase Notice directing the Investor to purchase an amount of Purchase Shares that exceeds the Additional Accelerated Purchase Share Amount that the Company is then permitted to include in such Additional Accelerated Purchase Notice, such Additional Accelerated Purchase Notice shall be void *ab initio* only with respect to the extent of the amount by which the number of Purchase Shares set forth in such Additional Accelerated Purchase Notice exceeds the Additional Accelerated Purchase Share Amount that the Company is then permitted to include in such Additional Accelerated Purchase Notice (which shall be confirmed in an Additional Accelerated Purchase Confirmation), and the Investor shall have no obligation to purchase such excess Purchase Shares in respect of such Additional Accelerated Purchase Notice; provided, however, that the Investor shall remain obligated to purchase the Additional Accelerated Purchase Share Amount which the Company is permitted to include in such Additional Accelerated Purchase Notice. Within one (1) Business Day after completion of each Additional Accelerated Purchase Date, the Investor will provide to the Company a written confirmation of each Additional Accelerated Purchase on such Additional Accelerated Purchase Date setting forth the applicable Additional Accelerated Purchase Share Amount and Additional Accelerated Purchase Price for each such Additional Accelerated Purchase on such Additional Accelerated Purchase Date (each, an “Additional Accelerated Purchase Confirmation”). Notwithstanding the foregoing, the Company shall not deliver any Additional Accelerated Purchase Notices during the PEA Period.

(d) Compliance with Principal Market Rules. Notwithstanding anything in this Agreement to the contrary, and in addition to the limitations set forth in Section 2(e), the Company shall not issue more than 10,447,102 shares (including the Commitment Shares) of Common Stock (the “Exchange Cap”) under this Agreement, which equals 19.99% of the Company’s outstanding shares of Common Stock as of the date hereof, unless stockholder approval is obtained to issue in excess of the Exchange Cap; provided, however, that the foregoing limitation shall not apply if at any time the Exchange Cap is reached and at all times thereafter the average price paid for all shares of Common Stock issued under this Agreement is equal to or greater than \$1.08 (the “Minimum Price”), a price equal to the lower of (i) the Nasdaq Official Closing Price immediately preceding the execution of this Agreement and (ii) the arithmetic average of the five (5) Nasdaq Official Closing Prices for the Common Stock immediately preceding the execution of this Agreement, as calculated in accordance with the rules of the Principal Market (in such circumstance, for purposes of the Principal Market, the transaction contemplated hereby would not be “below market” and the Exchange Cap would not apply). Notwithstanding the foregoing, the Company shall not be required or permitted to issue, and the Investor shall not be required to purchase, any shares of Common Stock under this Agreement if such issuance would violate the rules or regulations of the Principal Market. The Company may, in its sole discretion, determine whether to obtain stockholder approval to issue more than 19.99% of its outstanding shares of Common Stock hereunder if such issuance would require stockholder approval under the rules or regulations of the Principal Market. The Exchange Cap shall be reduced, on a share-for-share basis, by the number of shares of Common Stock issued or issuable that may be aggregated with the transactions contemplated by this Agreement under applicable rules of the Principal Market.

(e) Payment for Purchase Shares. For each Regular Purchase, the Investor shall pay to the Company an amount equal to the Purchase Amount with respect to such Regular Purchase, as applicable, as full payment for such Purchase Shares via wire transfer of immediately available funds on the same Business Day that the Investor receives such Purchase Shares, if such Purchase Shares are received by the Investor before 1:00 p.m., Eastern time, or, if such Purchase Shares are received by the Investor after 1:00 p.m., Eastern time, the next Business Day. For each Accelerated Purchase and each Additional Accelerated Purchase, the Investor shall pay to the Company an amount equal to the Purchase Amount with respect to such Accelerated Purchase and Additional Accelerated Purchase, respectively, as full payment for such Purchase Shares via wire transfer of immediately available funds on the second Business Day following the date that the Investor receives such Purchase Shares. If the Company or the Transfer Agent shall fail for any reason or for no reason to electronically transfer any Purchase Shares as DWAC Shares with respect to any Regular Purchase, Accelerated Purchase or Additional Accelerated Purchase (as applicable) within two (2) Business Days following the receipt by the Company of the Purchase Price, Accelerated Purchase Price or Additional Accelerated Purchase Price, respectively, therefor in compliance with this Section 2(e), and if on or after such Business Day the Investor purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by the Investor of such Purchase Shares that the Investor anticipated receiving from the Company in respect of such Regular Purchase, Accelerated Purchase or Additional Accelerated Purchase (as applicable), then the Company shall, within two (2) Business Days after the Investor’s request, either (i) pay cash to the Investor in an amount equal to the Investor’s total purchase price (including customary brokerage commissions, if any) for the shares of Common Stock so purchased (the “Cover Price”), at which point the Company’s obligation to deliver such Purchase Shares as DWAC Shares shall terminate, or (ii) promptly honor its obligation to deliver to the Investor such Purchase Shares as DWAC Shares and pay cash to the Investor in an amount equal to the excess (if any) of the Cover Price over the total Purchase Amount paid by the Investor pursuant to this Agreement for all of the Purchase Shares to be purchased by the Investor in connection with such purchases. The Company shall not issue any fraction of a share of Common Stock upon any Regular Purchase, Accelerated Purchase or Additional Accelerated Purchase. If the issuance would result in the issuance of a fraction of a share of Common Stock, the Company shall round such fraction of a share of Common Stock up or down to the nearest whole share (with 0.5 rounded up). All payments made under this Agreement shall be made in lawful money of the United States of America or wire transfer of immediately available funds to such account as the Company may from time to time designate by written notice in accordance with the provisions of this Agreement. Whenever any amount expressed to be due by the terms of this Agreement is due on any day that is not a Business Day, the same shall instead be due on the next succeeding day that is a Business Day.

(f) Beneficial Ownership Limitation. Notwithstanding anything to the contrary contained in this Agreement, the Company shall not issue or sell, and the Investor shall not purchase or acquire, any shares of Common Stock under this Agreement which, when aggregated with all other shares of Common Stock then beneficially owned by the Investor and its affiliates (as calculated pursuant to Section 13(d) of the Exchange Act and Rule 13d-3 promulgated thereunder), would result in the beneficial ownership by the Investor and its affiliates of more than 9.99% of the then issued and outstanding shares of Common Stock (the “Beneficial Ownership Limitation”). The Investor and the Company shall each cooperate in good faith in the determinations required hereby and the application hereof. The Investor’s written certification to the Company of the applicability of the Beneficial Ownership Limitation, and the resulting effect thereof hereunder at any time, shall be conclusive with respect to the applicability thereof and such result absent manifest error.

3. INVESTOR'S REPRESENTATIONS AND WARRANTIES.

The Investor represents and warrants to the Company that as of the date hereof and as of the Commencement Date:

(a) Organization, Authority. Investor is an entity duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization, with the requisite power and authority to enter into and to consummate the transactions contemplated by this Agreement and the other Transaction Documents to which it is a party and otherwise to carry out its obligations hereunder and thereunder.

(b) Investment Purpose. The Investor is acquiring the Securities as principal for its own account for investment only and not with a view to or for distributing or reselling such Securities or any part thereof in violation of the Securities Act or any applicable state securities law, has no present intention of distributing any of such Securities in violation of the Securities Act or any applicable state securities law and has no direct or indirect arrangement or understandings with any other Persons to distribute or regarding the distribution of such Securities in violation of the Securities Act or any applicable state securities law (this representation and warranty not limiting the Investor's right to sell the Securities at any time pursuant to the Registration Statement described herein or otherwise in compliance with applicable federal and state securities laws). The Investor is acquiring the Securities hereunder in the ordinary course of its business.

(c) Accredited Investor Status. The Investor is an "accredited investor" as that term is defined in Rule 501(a)(3) of Regulation D promulgated under the Securities Act.

(d) Information. The Investor understands that its investment in the Securities involves a high degree of risk. The Investor (i) is able to bear the economic risk of an investment in the Securities including a total loss thereof, (ii) has such knowledge and experience in financial and business matters that it is capable of evaluating the merits and risks of the proposed investment in the Securities and (iii) has had an opportunity to ask questions of and receive answers from the officers of the Company concerning the financial condition and business of the Company and other matters related to an investment in the Securities. Neither such inquiries nor any other due diligence investigations conducted by the Investor or its representatives shall modify, amend or affect the Investor's right to rely on the Company's representations and warranties contained in Section 4 below. The Investor has sought such accounting, legal and tax advice as it has considered necessary to make an informed investment decision with respect to its acquisition of the Securities and is not relying on any accounting, legal tax or other advice from the Company or its officers, employees or representatives. The Investor has relied solely on its own investigation and acknowledges and agrees that the Company neither makes nor has made any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth in Section 4 hereof. None of any such inquiries, any other due diligence investigations conducted by the Investor or its advisors or its representatives, if any, and the making by the Investor of representations and warranties pursuant to this Section 3 shall modify, amend or otherwise affect the Investor's right to rely on the representations, warranties, covenants and agreements of the Company contained in this Agreement and the other Transaction Documents.

(e) No Governmental Review. The Investor understands that no U.S. federal or state agency or any other government or governmental agency has passed on or made any recommendation or endorsement of the Securities or the fairness or suitability of an investment in the Securities nor have such authorities passed upon or endorsed the merits of the offering of the Securities.

(f) Validity; Enforcement. This Agreement and the other Transaction Documents have been duly and validly authorized, executed and delivered on behalf of the Investor and each is a valid and binding agreement of the Investor enforceable against the Investor in accordance with its terms, subject as to enforceability to general principles of equity and to applicable bankruptcy, insolvency, reorganization, moratorium, liquidation and other similar laws relating to, or affecting generally, the enforcement of applicable creditors' rights and remedies.

(g) Residency. The Investor's principal place of business is located in the State of Illinois.

(h) No Short Selling. The Investor represents and warrants to the Company that at no time prior to the date of this Agreement has any of the Investor, its agents (in their capacities as such), representatives or affiliates (in their capacities as such) engaged in or effected, in any manner whatsoever, directly or indirectly, any (i) "short sale" (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of the Common Stock or (ii) hedging transaction that establishes a net short position with respect to the Common Stock.

4. REPRESENTATIONS AND WARRANTIES OF THE COMPANY.

The Company represents and warrants to the Investor that, as of the date hereof and as of the Commencement Date:

(a) Organization and Qualification. The Company and each of its Subsidiaries is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite corporate power and authority to own and use its properties and assets and to carry on its business as currently conducted. Neither the Company nor any of its Subsidiaries is in violation or default of any of the provisions of its respective certificate or articles of formation or incorporation, bylaws or other organizational or charter documents except as would not be expected to result in a Material Adverse Effect. Each of the Company and its Subsidiaries is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, and no proceeding has been instituted in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification, except where the failure to be so qualified or in good standing or such proceeding, as the case may be, would not reasonably be expected to result in a Material Adverse Effect. The Company has no Subsidiaries, except for the subsidiaries set forth on Exhibit 21.1 to the Company's Annual Report on Form 10-K for the year ended December 31, 2022.

(b) Authorization; Enforcement; Validity. (i) The Company has the requisite corporate power and authority to enter into and perform its obligations under this Agreement and each of the other Transaction Documents, and to issue the Securities in accordance with the terms hereof, (ii) the execution and delivery of the Transaction Documents by the Company and the consummation by it of the transactions contemplated hereby and thereby, including without limitation, the issuance of the Commitment Shares (as defined below in Section 5(e)), the reservation for issuance and the issuance of the Purchase Shares issuable under this Agreement, have been duly authorized by the Company's board of directors, or a validly authorized committee thereof (collectively, the "Board of Directors"), and no further consent or authorization is required by the Company, its Board of Directors or any committee thereof, or its stockholders (save to the extent provided in this Agreement), (iii) this Agreement has been, and each other Transaction Document shall be on the Commencement Date, duly executed and delivered by the Company and (iv) this Agreement constitutes, and each other Transaction Document upon its execution on behalf of the Company, shall constitute, the valid and binding obligations of the Company enforceable against the Company in accordance with their terms, except as such enforceability may be limited by general principles of equity or applicable bankruptcy, insolvency, reorganization, moratorium, liquidation or similar laws relating to, or affecting generally, the enforcement of creditors' rights and remedies. The Board of Directors of the Company has approved the resolutions (the "Signing Resolutions") substantially in the form as set forth as Exhibit B attached hereto to authorize this Agreement and the transactions contemplated hereby. The Signing Resolutions are valid, in full force and effect and have not been modified or supplemented in any respect. The Company has delivered to the Investor a true and correct copy of a unanimous written consent adopting the Signing Resolutions executed by all of the members of the Board of Directors of the Company. Except as set forth in this Agreement, no other approvals or consents of the Board of Directors, any other authorized committee thereof, and/or stockholders is necessary under applicable laws and the Company's Charter and/or Bylaws to authorize the execution and delivery of this Agreement or any of the transactions contemplated hereby, including, but not limited to, the issuance of the Commitment Shares and the issuance of the Purchase Shares.

(c) Capitalization. As of the date hereof, the authorized capital stock of the Company consists of 110,000,000 shares of \$0.0001 par value Common Stock and 1,000,000 shares of \$0.0001 par value preferred stock. Except as disclosed in the SEC Documents (as defined below) filed at least two (2) Business Days prior to the date hereof, (i) no shares of the Company's capital stock are subject to preemptive rights or any other similar rights or any liens or encumbrances suffered or permitted by the Company, (ii) there are no outstanding debt securities, (iii) there are no outstanding options, warrants, scrip, rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities or rights convertible into, any shares of capital stock of the Company or any of its Subsidiaries, or contracts, commitments, understandings or arrangements by which the Company or any of its Subsidiaries is or may become bound to issue additional shares of capital stock of the Company or any of its Subsidiaries or options, warrants, scrip, rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities or rights convertible into, any shares of capital stock of the Company or any of its Subsidiaries, (iv) there are no agreements or arrangements under which the Company or any of its Subsidiaries is obligated to register the sale of any of their securities under the Securities Act (except the Registration Rights Agreement and those registration rights for which a registration statement has been filed), (v) there are no outstanding securities or instruments of the Company or any of its Subsidiaries which contain any redemption or similar provisions, and there are no contracts, commitments, understandings or arrangements by which the Company or any of its Subsidiaries is or may become bound to redeem a security of the Company or any of its Subsidiaries, (vi) there are no securities or instruments containing anti-dilution or similar provisions that will be triggered by the issuance of the Securities as described in this Agreement and (vii) the Company does not have any stock appreciation rights or "phantom stock" plans or agreements or any similar plan or agreement. The Company has furnished to the Investor true and correct copies of the Charter and the Bylaws, each as in effect on the date hereof, and copies of any documents containing the material rights of holders of securities convertible or exercisable for Common Stock, to the extent not filed as an exhibit to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2022, or other Exchange Act reports.

(d) Issuance of Securities. Upon issuance and payment therefor in accordance with the terms and conditions of this Agreement, the Purchase Shares shall be validly issued, fully paid and nonassessable and free from all taxes, Liens, charges, restrictions, rights of first refusal and preemptive rights with respect to the issue thereof, with the holders being entitled to all rights accorded to a holder of Common Stock. 25,000,000 shares of Common Stock have been duly authorized and reserved for issuance upon purchase under this Agreement as Purchase Shares. 635,593 shares of Common Stock have been duly authorized and reserved for issuance as Commitment Shares in accordance with this Agreement (subject, in each case, to equitable adjustment for any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction). Upon issuance in accordance with the terms and conditions of this Agreement, the Commitment Shares shall be validly issued, fully paid and nonassessable and free from all taxes, Liens, charges, restrictions (other than such restrictions on transfer arising under the Securities Act prior to the effective date of the Registration Statement registering the resale thereof by the Investor under the Securities Act), rights of first refusal and preemptive rights with respect to the issue thereof, with the holders being entitled to all rights accorded to a holder of Common Stock. Upon receipt of the Purchase Shares and the Commitment Shares, the Investor will have good and marketable title to such Securities and the Purchase Shares will be immediately freely tradeable on the Principal Market by any holder who is not an "affiliate" of the Company under the Securities Act.

(e) No Conflicts. The execution, delivery and performance of the Transaction Documents by the Company and the consummation by the Company of the transactions contemplated hereby and thereby (including, without limitation, the reservation for issuance and issuance of the Purchase Shares and the Commitment Shares) will not (i) result in a violation of the Charter, any certificate of designations, preferences and rights of any outstanding series of preferred stock of the Company or the Bylaws or (ii) conflict with, or constitute a default (or an event which with notice or lapse of time or both would become a default) under, or give to others any rights of termination, amendment, acceleration or cancellation of, any agreement, indenture or instrument to which the Company or any of its Subsidiaries is a party, or result in a violation of any law, rule, regulation, order, judgment or decree (including federal and state securities laws and regulations and the rules and regulations of the Principal Market applicable to the Company or any of its Subsidiaries) or by which any property or asset of the Company or any of its Subsidiaries is bound or affected, except in the case of conflicts, defaults, terminations, amendments, accelerations, cancellations and violations under clause (ii), which would not reasonably be expected to result in a Material Adverse Effect. Neither the Company nor its Subsidiaries is in violation of any term of or in default under its Charter, any certificate of designation, preferences and rights of any outstanding series of preferred stock of the Company or Bylaws or their organizational charter or bylaws, respectively. Neither the Company nor any of its Subsidiaries is in violation of any term of or is in default under any material contract, agreement, mortgage, indebtedness, indenture, instrument, judgment, decree or order or any statute, rule or regulation applicable to the Company or its Subsidiaries, except for possible conflicts, defaults, terminations or amendments that would not reasonably be expected to have a Material Adverse Effect. The business of the Company and its Subsidiaries is not being conducted, and shall not be conducted, in violation of any law, ordinance or regulation of any governmental entity, except for possible violations, the sanctions for which either individually or in the aggregate would not reasonably be expected to have a Material Adverse Effect. Except as specifically contemplated by this Agreement and as required under the Securities Act or applicable state securities laws and the rules and regulations of the Principal Market, the Company is not required to obtain any consent, authorization or order of, or make any filing or registration with, any court or governmental agency or any regulatory or self-regulatory agency in order for it to execute, deliver or perform any of its obligations under or contemplated by the Transaction Documents in accordance with the terms hereof or thereof. Except as set forth elsewhere in this Agreement, (i) all consents, authorizations, orders, filings and registrations which the Company is required to obtain pursuant to the preceding sentence on or prior to the date hereof or on or prior to the Commencement Date shall have been obtained or effected on or prior to the date hereof and on or prior to the Commencement Date, respectively, and (ii) all consents, authorizations, orders, filings and registrations which the Company is required to obtain pursuant to the preceding sentence with respect to the Commencement shall be obtained or effected on or prior to the Commencement Date.

(f) SEC Documents; Financial Statements. The Company has filed all reports, schedules, forms, statements and other documents required to be filed by the Company under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the twelve (12) months preceding the date hereof (or such shorter period as the Company was required by law or regulation to file such material) (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, together with the Registration Statement, being collectively referred to herein as the “SEC Documents”) on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Documents prior to the expiration of any such extension. As of their respective dates, the SEC Documents complied as to form in all material respects with the requirements of the Securities Act and the Exchange Act, as applicable, each as in effect on the date so filed. None of the SEC Documents, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The financial statements of the Company included in the SEC Documents comply as to form in all material respects with applicable accounting requirements and the rules and regulations of the SEC with respect thereto as in effect at the time of filing. Such financial statements have been prepared in accordance with United States generally accepted accounting principles applied on a consistent basis during the periods involved (“GAAP”), except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by GAAP, and fairly present in all material respects the financial position of the Company and its consolidated Subsidiaries as of and for the dates thereof and the results of operations and cash flows for the periods presented, subject, in the case of unaudited financial statements, to normal, immaterial, year-end audit adjustments. Except as publicly available through the SEC’s Electronic Data Gathering, Analysis, and Retrieval system (EDGAR), the Company has received no notices or correspondence from the SEC for the one year preceding the date hereof other than SEC comment letters relating to the Company’s filings under the Exchange Act and the Securities Act. There are no SEC comments that have been received by the Company that have not been resolved. To the Company’s knowledge, the SEC has not commenced any enforcement proceedings against the Company or any of its Subsidiaries.

(g) Absence of Certain Changes. Except as disclosed in the SEC Documents filed at least two (2) Business Days prior to the date hereof, since December 31, 2022, there has been no material adverse change in the business, properties, operations, financial condition or results of operations of the Company or its Subsidiaries. For purposes of this Agreement, neither a decrease in cash or cash equivalents or in the market price of the Common Stock nor losses incurred in the ordinary course of the Company's business shall be deemed or considered material adverse changes; provided, however, that the underlying cause of any such decrease or loss may be considered in determining whether a material adverse change has occurred. The Company has not taken any steps, and does not currently expect to take any steps, to seek protection pursuant to any Bankruptcy Law nor does the Company or any of its Subsidiaries have any knowledge or reason to believe that its creditors intend to initiate involuntary bankruptcy or insolvency proceedings. The Company is financially solvent and is generally able to pay its debts as they become due. Notwithstanding the foregoing, the Company and the Investor acknowledge that the matters set forth in the explanatory paragraph regarding substantial doubt about the Company's ability to continue as a going concern in the report of the Company's independent registered public accounting firm for the year ended December 31, 2022, which shall not be deemed to be a breach of this Section 3(g).

(h) Absence of Litigation. Except as disclosed in the SEC Documents filed at least two (2) Business Days prior to the date hereof, there is no action, suit, proceeding, inquiry or investigation before or by any court, public board, government agency, self-regulatory organization or body pending or, to the knowledge of the Company or any of its Subsidiaries, threatened against the Company, the Common Stock or any of the Company's or its Subsidiaries' officers or directors in their capacities as such, which would reasonably be expected to have a Material Adverse Effect.

(i) Acknowledgment Regarding Investor's Status. The Company acknowledges and agrees that the Investor is acting solely in the capacity of arm's length purchaser with respect to the Transaction Documents and the transactions contemplated hereby and thereby. The Company further acknowledges that the Investor is not acting as a financial advisor or fiduciary of the Company (or in any similar capacity) with respect to the Transaction Documents and the transactions contemplated hereby and thereby and any advice given by the Investor or any of its representatives or agents in connection with the Transaction Documents and the transactions contemplated hereby and thereby is merely incidental to the Investor's purchase of the Securities. The Company further represents to the Investor that the Company's decision to enter into the Transaction Documents has been based solely on the independent evaluation by the Company and its representatives and advisors.

(j) No Aggregated Offering. Neither the Company, nor any of its affiliates, nor any Person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause this offering of the Securities to be integrated or aggregated with prior offerings by the Company in a manner that would require stockholder approval pursuant to the rules of the Principal Market on which any of the securities of the Company are listed or designated. The issuance and sale of the Commitment Shares hereunder does not, and subject to the terms of this Agreement, the issuance and sale of the additional Purchase Shares will not, contravene the rules and regulations of the Principal Market.

(k) Intellectual Property Rights. Except as disclosed in the SEC Documents filed at least two (2) Business Days prior to the date hereof, the Company and its Subsidiaries own or possess adequate rights or licenses to use all material trademarks, trade names, service marks, service mark registrations, service names, patents, patent rights, copyrights, inventions, licenses, approvals, governmental authorizations, trade secrets and rights necessary to conduct their respective businesses as now conducted, except as such failure to own, possess or acquire such rights would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect. None of the Company's material trademarks, trade names, service marks, service mark registrations, service names, patents, patent rights, copyrights, inventions, licenses, approvals, government authorizations, trade secrets or other intellectual property rights have expired or terminated, or, by the terms and conditions thereof, could expire or terminate within two years from the date of this Agreement, except as would not reasonably be expected to have a Material Adverse Effect. Except as set forth in the SEC Documents, the Company and its Subsidiaries do not have any knowledge of any infringement by the Company or its Subsidiaries of any material trademark, trade name rights, patents, patent rights, copyrights, inventions, licenses, service names, service marks, service mark registrations, trade secret or other similar rights of others, or of any such development of similar or identical trade secrets or technical information by others, and there is no claim, action or proceeding that has been brought against, or to the Company's knowledge, being threatened against, the Company or its Subsidiaries regarding trademark, trade name, patents, patent rights, invention, copyright, license, service names, service marks, service mark registrations, trade secret or other infringement, which would reasonably be expected to have a Material Adverse Effect.

(l) Environmental Laws. To the Company's knowledge, the Company and its Subsidiaries (i) are in compliance with any and all applicable foreign, federal, state and local laws and regulations relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants ("Environmental Laws"), (ii) have received all permits, licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses and (iii) are in compliance with all terms and conditions of any such permit, license or approval, except where, in each of the three foregoing clauses, the failure to so comply could not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

(m) Title. Except as set forth in the SEC Documents, the Company and its Subsidiaries have good and marketable title in fee simple to all real property owned by them and good and marketable title in all personal property owned by them that is material to the business of the Company and its Subsidiaries, taken as a whole, in each case free and clear of all liens, encumbrances and defects ("Liens") and, except for Liens as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company and its Subsidiaries and Liens for the payment of federal, state or other taxes, the payment of which is neither delinquent nor subject to penalties that would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect. Any real property and facilities held under lease by the Company and its Subsidiaries are held by them under valid, subsisting and enforceable leases with which the Company and its Subsidiaries are in compliance with such exceptions as are not material and do not interfere with the use made and proposed to be made of such property and buildings by the Company and its Subsidiaries, taken as a whole, except for such interference which would not reasonably be expected to have a Material Adverse Effect.

(n) Insurance. The Company and each of its Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as management of the Company believes to be prudent and customary in the businesses in which the Company and its Subsidiaries are engaged (including in respect of directors and officers liability insurance). Neither the Company nor any such Subsidiary has been refused any insurance coverage sought or applied for and neither the Company nor any such Subsidiary has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not reasonably be expected to have a materially and adversely affect the condition, financial or otherwise, or the earnings, business or operations of the Company and its Subsidiaries, taken as a whole.

(o) Regulatory Permits. Except as disclosed in the SEC Documents filed at least two (2) Business Days prior to the date hereof, the Company and its Subsidiaries possess all material certificates, authorizations and permits issued by the appropriate federal, state or foreign regulatory authorities necessary to conduct their respective businesses as currently conducted, except where the failure to possess such certificates, authorizations or permits would not reasonably be expected to have a Material Adverse Effect, and neither the Company nor any such Subsidiary has received any written notice of proceedings relating to the revocation or modification of any such material certificate, authorization or permit.

(p) Compliance with Laws. The Company is not in violation of any Applicable Law, except as would not reasonably be expected to have a Material Adverse Effect.

(q) Tax Status. The Company and each of its Subsidiaries has made or filed all federal, state, local or foreign income and all other material tax returns, reports and declarations required by any jurisdiction to which it is subject or otherwise filed timely extensions (unless and only to the extent that the Company and each of its Subsidiaries has set aside on its books provisions reasonably adequate for the payment of all unpaid and unreported taxes) and has paid all taxes and other governmental assessments and charges that are material in amount, shown or determined to be due on such returns, reports and declarations, except those being contested in good faith and has set aside on its books provision reasonably adequate for the payment of all taxes for periods subsequent to the periods to which such returns, reports or declarations apply, and except as would not reasonably be expected to have a Material Adverse Effect. To the Company's knowledge, there are no unpaid taxes in any material amount claimed to be due by the taxing authority of any jurisdiction.

(r) Transactions With Affiliates. Except as disclosed in the SEC Documents filed at least two (2) Business Days prior to the date hereof, none of the Company's stockholders, officers or directors or any family member or affiliate of any of the foregoing, has either directly or indirectly an interest in, or is a party to, any transaction that would be required to be disclosed as a related party transaction pursuant to Item 404 of Regulation S-K promulgated under the Securities Act.

(s) Application of Takeover Protections. The Company and its board of directors have taken or will take prior to the Commencement Date all necessary action, if any, in order to render inapplicable any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the Charter or the laws of the state of its incorporation which is or could become applicable to the Investor as a result of the transactions contemplated by this Agreement, including, without limitation, the Company's issuance of the Securities and the Investor's ownership of the Securities.

(t) Disclosure. Except with respect to the material terms and conditions of the transactions contemplated by the Transaction Documents or any other agreements to be entered into by the Company and the Investor that, in each case, which shall be timely publicly disclosed by the Company, the Company confirms that neither it nor any other Person acting on its behalf has provided the Investor or its agents or counsel with any information that the Company believes constitutes or would reasonably constitute material, non-public information which is not otherwise disclosed in the Registration Statement or the SEC Documents. The Company understands and confirms that the Investor will rely on the foregoing representation in effecting purchases and sales of securities of the Company. All of the disclosure furnished by or on behalf of the Company to the Investor regarding the Company, its business and the transactions contemplated hereby, including the disclosure schedules to this Agreement, taken as a whole is true and correct in all material respects and does not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading. The press releases disseminated by the Company during the twelve (12) months preceding the date of this Agreement taken as a whole do not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made and when made, not misleading. The Company acknowledges and agrees that the Investor neither makes nor has made any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth in Section 3 hereof.

(u) Foreign Corrupt Practices. Neither the Company nor any of its Subsidiaries nor, to the knowledge of the Company, any director or officer nor any agent, employee or affiliate of the Company or any Subsidiary is aware of or has taken any action, directly or indirectly, that would result in a violation by such persons of the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (the “FCPA”), including, without limitation, making use of the mails or any means or instrumentality of interstate commerce corruptly in furtherance of an offer, payment, promise to pay or authorization of the payment of any money, or other property, gift, promise to give, or authorization of the giving of anything of value to any “foreign official” (as such term is defined in the FCPA) or any foreign political party or official thereof or any candidate for foreign political office, in contravention of the FCPA; and the Company, each of its Subsidiaries and, to the knowledge of the Company, its affiliates have conducted their businesses in compliance with the FCPA and have instituted and maintain policies and procedures reasonably designed to ensure, and which are reasonably expected to continue to ensure, continued compliance therewith. The operations of the Company and each of its Subsidiaries are and have been conducted at all times in material compliance with applicable money laundering statutes and the rules and regulations thereunder administered or enforced by any applicable governmental agency, including, without limitation, Title 18 U.S. Code section 1956 and 1957, the Patriot Act, the Bank Secrecy Act, and international anti-money laundering principles or procedures by an intergovernmental group or organization, such as the Financial Action Task Force on Money Laundering, of which the United States is a member and with which designation the United States representative to the group or organization continues to concur, all as amended, and any Executive order, directive or regulation pursuant to the authority of any of the foregoing, or any orders or licenses issued thereunder (collectively, the “Money Laundering Laws”), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its Subsidiaries with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened. Neither the Company nor any of its Subsidiaries, nor to the knowledge of the Company any of the directors, officers or employees, agents, affiliates or representatives of the Company or each of its Subsidiaries, is an individual or entity that is, or is owned or controlled by an individual or entity that is: (i) the subject of any sanctions administered or enforced by the U.S. Department of Treasury’s Office of Foreign Assets Control, the United Nations Security Council, the European Union, Her Majesty’s Treasury, or other relevant sanctions authority (collectively, “Sanctions”), nor (ii) located, organized or resident in a country or territory that is the subject of Sanctions (including, without limitation, the Balkans, Belarus, Burma/Myanmar, Cote D’Ivoire, Cuba, Democratic Republic of Congo, Iran, Iraq, Liberia, Libya, North Korea, Russia, Sudan, Syria, Venezuela and Zimbabwe). Neither the Company nor any of its Subsidiaries will, directly or indirectly, use the proceeds of the transactions contemplated hereby, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other individual or entity: (i) to fund or facilitate any activities or business of or with any individual or entity or in any country or territory that, at the time of such funding or facilitation, is the subject of Sanctions or (ii) in any other manner that will result in a violation of Sanctions by any individual or entity (including any individual or entity participating in the transactions contemplated hereby, whether as underwriter, advisor, investor or otherwise). For the past five years, neither the Company nor any of its Subsidiaries has knowingly engaged in, and is not now knowingly engaged in, any dealings or transactions with any individual or entity, or in any country or territory, that at the time of the dealing or transaction is or was the subject of Sanctions.

(v) DTC Eligibility. The Company, through the Transfer Agent, currently participates in the DTC Fast Automated Securities Transfer (FAST) Program and the Common Stock can be transferred electronically to third parties via the DTC Fast Automated Securities Transfer (FAST) Program. The Common Stock is not subject to any DTC “chill,” freeze or similar restriction with respect to any DTC services, including the clearing of shares of Common Stock through DTC.

(w) Sarbanes-Oxley. The Company is in material compliance with all provisions of the Sarbanes-Oxley Act of 2002, as amended, which are applicable to it as of the date hereof.

(x) Certain Fees. No brokerage or finder’s fees or commissions are or will be payable by the Company to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by the Transaction Documents. The Investor shall have no obligation with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of a type contemplated in this Section 4(x) that may be due in connection with the transactions contemplated by the Transaction Documents.

(y) Investment Company. The Company is not required to be registered as, and immediately after receipt of any payment for the Purchase Shares will not be required to be registered as, an “investment company” within the meaning of the Investment Company Act of 1940, as amended.

(z) Listing and Maintenance Requirements. The Common Stock is registered pursuant to Section 12(b) of the Exchange Act, and the Company has taken no action designed to, or which to its knowledge is likely to have the effect of, terminating the registration of the Common Stock pursuant to the Exchange Act nor has the Company received any notification that the SEC is currently contemplating terminating such registration. The Company has taken no action designed to, or likely to have the effect of, delisting the Common Stock from the Principal Market, nor has the Company received any notice from any Person to the effect that the Company is not in compliance with the listing or maintenance requirements of the Principal Market. The Company is, and has no reason to believe that it will not in the foreseeable future continue to be, in compliance with all such listing and maintenance requirements.

(aa) Accountants. The Company’s accountants are set forth in the SEC Documents and, to the knowledge of the Company, such accountants are an independent registered public accounting firm as required by the Securities Act.

(bb) No Market Manipulation. The Company has not, and to its knowledge, no Person acting on its behalf has, (i) taken, directly or indirectly, any action designed to cause or to result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of any of the Securities, (ii) sold, bid for, purchased, or, paid any compensation for soliciting purchases of, any of the Securities, or (iii) paid or agreed to pay to any Person any compensation for soliciting another to purchase any other securities of the Company in connection with the transactions contemplated in this Agreement.

(cc) Shell Company Status. The Company is not, an issuer identified in Rule 144(i)(1) under the Securities Act and has filed with the SEC on February 9, 2021 current “Form 10 information” (as defined in Rule 144(i)(3) under the Securities Act) reflecting its status as an entity that is no longer an issuer identified in Rule 144(i)(1)(i) under the Securities Act.

(dd) No Disqualification Events. None of the Company, any of its predecessors, any affiliated issuer, nor to the Company’s knowledge, any director, executive officer, other officer of the Company participating in the offering contemplated hereby, any beneficial owner of 20% or more of the Company’s outstanding voting equity securities, calculated on the basis of voting power, nor any promoter (as that term is defined in Rule 405 under the Securities Act) connected with the Company in any capacity at the time of sale (each, an “Issuer Covered Person”) is subject to any of the “Bad Actor” disqualifications described in Rule 506(d)(1)(i) to (viii) under the Securities Act (a “Disqualification Event”), except for a Disqualification Event covered by Rule 506(d)(2) or (d)(3) under the Securities Act. The Company has exercised reasonable care to determine whether any Issuer Covered Person is subject to a Disqualification Event.

(ee) Absence of Schedules. In the event that on the date hereof, or the Commencement Date, the Company does not deliver any disclosure schedule contemplated by this Agreement, the Company hereby acknowledges and agrees that each such undelivered disclosure schedule shall be deemed to read as follows: “Nothing to Disclose.”

5. COVENANTS.

(a) Filing of Current Report and Registration Statement. The Company agrees that it shall, within the time required under the Exchange Act, file with the SEC a report on Form 8-K relating to the transactions contemplated by, and describing the material terms and conditions of, the Transaction Documents (the “Current Report”). The Company shall also file with the SEC, as soon as practicable, and in any event within forty-five (45) Business Days of the date of this Agreement, a Registration Statement on Form S-3 (or on another registration statement form the Company is then eligible to use for such purpose) covering the resale of the Purchase Shares and all of the Commitment Shares in accordance with the terms of the Registration Rights Agreement. The Company shall permit the Investor to review and comment upon the final pre-filing draft version of each of the Current Report and the Registration Statement at least two (2) Business Days prior to their respective filing with the SEC and, with respect to information regarding the Investor or the transaction contemplated hereby, the Company shall not file the Current Report or the Registration Statement with the SEC in a form to which the Investor reasonably objects. The Investor shall use its reasonable efforts to comment upon the final pre-filing draft version of the Current Report and the Registration Statement within one (1) Business Day from the date the Investor receives it from the Company. The Investor shall furnish to the Company such information regarding itself, the Securities held by it and the intended method of distribution thereof, including any arrangement between the Investor and any other Person relating to the sale or distribution of the Securities, as shall be reasonably requested by the Company in connection with the preparation and filing of the Current Report and the Registration Statement, and shall otherwise cooperate with the Company as reasonably requested by the Company in connection with the preparation and filing of the Current Report and the Registration Statement with the SEC.

(b) Blue Sky. The Company shall take all such action, if any, as is reasonably necessary in order to obtain an exemption for or to register or qualify (i) the issuance and the sale of the Securities to the Investor under this Agreement and (ii) any subsequent resale of all Commitment Shares and all Purchase Shares by the Investor, in each case, under applicable securities or “Blue Sky” laws of the states of the United States in such states as is reasonably requested by the Investor from time to time, and shall provide evidence of any such action so taken to the Investor.

(c) Listing/DTC. The Company shall use commercially reasonable efforts to maintain, so long as any shares of Common Stock shall be so listed, such listing of all Purchase Shares and Commitment Shares from time to time issuable hereunder. The Company shall use commercially reasonable efforts to maintain the listing of the Common Stock on the Principal Market and shall use commercially reasonable efforts to comply in all respects with the Company’s reporting, filing and other obligations under the Exchange Act, or rules and regulations of the Principal Market. The Company shall not take any action that would reasonably be expected to result in the delisting or suspension of the Common Stock on the Principal Market. The Company shall promptly, and in no event later than the following Business Day, provide to the Investor copies of any notices it receives from any Person regarding the continued eligibility of the Common Stock for listing on the Principal Market; provided, however, that the Company shall not be required to provide the Investor copies of any such notice that the Company reasonably believes constitutes material non-public information that the Company would not be required to contemporaneously publicly disclose in any report or statement filed with the SEC under the Exchange Act or the Securities Act. The Company shall pay all fees and expenses in connection with satisfying its obligations under this Section 5(c). The Company shall take all commercially reasonable action necessary to ensure that its Common Stock can be transferred electronically as DWAC Shares.

(d) Prohibition of Short Sales and Hedging Transactions. The Investor agrees that beginning on the date of this Agreement and ending on the date of termination of this Agreement as provided in Section 11, the Investor and its agents (in their capacities as such), representatives (in their capacities as such) and affiliates shall not in any manner whatsoever enter into or effect, directly or indirectly, any (i) “short sale” (as such term is defined in Rule 200 of Regulation SHO of the Exchange Act) of the Common Stock or (ii) hedging transaction, which establishes a net short position with respect to the Common Stock.

(e) Issuance of Commitment Shares. In consideration for the Investor’s execution and delivery of this Agreement, the Company shall cause the Transfer Agent to issue on the date of this Agreement 635,593 shares of Common Stock (to be appropriately adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction) (the “Commitment Shares”) directly to the Investor in accordance with Section 6 hereto and the Irrevocable Transfer Agent Instructions. For the avoidance of doubt, all of the Commitment Shares shall be fully earned as of the date of this Agreement, whether or not the Commencement shall occur or any Purchase Shares are purchased by the Investor under this Agreement and irrespective of any termination of this Agreement.

(f) Due Diligence; Non-Public Information. During the term of this Agreement, the Investor shall have the right, from time to time as the Investor may reasonably deem appropriate, and upon reasonable advance notice to the Company, to perform reasonable due diligence on the Company during normal business hours. The Company and its officers and employees shall provide material information and reasonably cooperate with the Investor in connection with any reasonable request by the Investor related to the Investor's due diligence of the Company. Each party hereto agrees not to disclose any Confidential Information of the other party to any third party and shall not use the Confidential Information for any purpose other than in connection with, or in furtherance of, the transactions contemplated hereby. Each party hereto acknowledges that the Confidential Information shall remain the property of the disclosing party and agrees that it shall take all reasonable measures to protect the secrecy of any Confidential Information disclosed by the other party. The receiving party may disclose Confidential Information to the extent such information is required to be disclosed by law, regulation or order of a court of competent jurisdiction or regulatory authority, provided that the receiving party shall promptly notify the disclosing party when such requirement to disclose arises, and shall cooperate with the disclosing party so as to enable the disclosing party to: (i) seek an appropriate protective order; and (ii) make any applicable claim of confidentiality in respect of such Confidential Information; and provided, further, that the receiving party shall disclose Confidential Information only to the extent required by the protective order or other similar order, if such an order is obtained, and, if no such order is obtained, the receiving party shall disclose only the minimum amount of such Confidential Information required to be disclosed in order to comply with the applicable law, regulation or order. In addition, any such Confidential Information disclosed pursuant to this section shall continue to be deemed Confidential Information. Notwithstanding anything in this Agreement to the contrary, (x) the Company shall not be obligated to provide the Investor with any information that constitutes or may reasonably be considered to constitute material, non-public information pursuant to a request for information hereunder, and (y) the Company and the Investor agree that (A) neither the Company nor any other Person acting on its behalf shall provide the Investor or its agents or counsel with any information that constitutes or may reasonably be considered to constitute material, non-public information, unless a simultaneous public announcement thereof is made by the Company in the manner contemplated by Regulation FD, and (B) in the event the Company believes that a notice or communication to the Investor or any of its affiliates, attorneys, agents or representatives pursuant to this Agreement or any other Transaction Document contains any material, nonpublic information, the Company shall so indicate to the Investor prior to delivery of such notice or communication, and such indication shall provide the Investor the means to refuse to receive such notice or communication; and in the absence of any such indication, the Investor and its affiliates, agents and representatives shall be allowed to presume that all matters relating to such notice or communication do not constitute material, non-public information. In the event of any breach of the foregoing covenants by the Company or any Person acting on its behalf (as determined in the reasonable good faith judgment of the Investor), in addition to any other remedy provided herein or in the other Transaction Documents, if the Investor is holding any Securities at the time of the disclosure of such material non-public information, the Investor shall have the right to make a public disclosure, in the form of a press release, public advertisement or otherwise, of such material, non-public information without the prior approval by the Company; provided the Investor shall have first provided notice to the Company that it believes it has received information that constitutes material, non-public information; and the Company shall have at least two Business Days from such notice to either publicly disclose such material, non-public information or to demonstrate to the Investor that such information does not constitute material, non-public information, and (assuming the Investor and Investor's counsel disagree in their reasonable good faith judgment with the Company's determination) prior to any such disclosure by the Investor; and the Company shall have failed to publicly disclose such material, non-public information. The Investor shall not have any liability to the Company, any of its Subsidiaries, or any of their respective directors, officers, employees, stockholders or agents, for any such disclosure in accordance with this Section 5(f). The Company understands and confirms that the Investor shall be relying on the foregoing covenants in effecting transactions in securities of the Company. The Company hereby acknowledges and agrees that, notwithstanding the provisions of this Section 5(f), if there is a breach or violation of any representation, covenant, provision or agreement of the Company set forth in this Section 5(f) or Section 5(a) resulting in the Investor obtaining or otherwise possessing material nonpublic information, neither the Investor nor any of the Investor's affiliates, attorneys, agents or representatives shall have any duty of trust or confidence (including any obligation under any confidentiality or non-disclosure agreement entered into by the Investor with the Company) with respect to, or obligation not to trade in any securities while aware of, such material nonpublic information.

(g) Purchase Records. The Investor and the Company shall each maintain records showing the remaining Available Amount at any given time and the dates and Purchase Amounts for each Regular Purchase, Accelerated Purchase and Additional Accelerated Purchase or shall use such other method, reasonably satisfactory to the Investor and the Company.

(h) Taxes. The Company shall pay any and all transfer, stamp or similar taxes that may be payable with respect to the issuance and delivery of any shares of Common Stock to the Investor made under this Agreement.

(i) Use of Proceeds. The Company will use the net proceeds from the offering for any corporate purpose at the sole discretion of the Company.

(j) Other Transactions. The Company shall not enter into, announce or recommend to its stockholders any agreement, plan, arrangement or transaction in or of which the terms thereof would restrict, materially delay, conflict with or impair the ability or right of the Company to perform its obligations under the Transaction Documents, including, without limitation, the obligation of the Company to deliver the Commitment Shares to the Investor in accordance with the terms of the Transaction Documents.

(k) Aggregation. From and after the date of this Agreement, neither the Company, nor or any of its affiliates will, and the Company shall use its reasonable best efforts to ensure that no Person acting on their behalf will, directly or indirectly, make any offers or sales of any security or solicit any offers to buy any security, under circumstances that would cause this offering of the Securities by the Company to the Investor to be aggregated with other offerings by the Company in a manner that would require stockholder approval pursuant to the rules of the Principal Market on which any of the securities of the Company are listed or designated, unless stockholder approval is obtained before the closing of such subsequent transaction in accordance with the rules of such Principal Market.

(l) Limitation on Variable Rate Transactions. From and after the date of this Agreement until the thirty-six (36) month anniversary of the date of this Agreement, the Company shall be prohibited from effecting or entering into an agreement to effect any issuance by the Company or any of its Subsidiaries of Common Stock involving a Variable Rate Transaction other than with the Investor. “Variable Rate Transaction” means an equity line of credit or any similar transaction whereby an investor is irrevocably bound to purchase securities over a period of time from the Company at a price based on the market price of the Company’s Common Stock at the time of each such purchase; provided, however, that this Section 5(l) shall not be deemed to prohibit the issuance and sale of Common Stock pursuant to an “at-the-market offering” by the Company exclusively through a registered broker-dealer acting as agent of the Company pursuant to a written agreement between the Company and such registered broker-dealer.

6. TRANSFER AGENT INSTRUCTIONS.

(a) Commitment Shares. No later than three (3) Business Days from the date of this Agreement, the Company shall issue to the Transfer Agent (and any subsequent transfer agent) irrevocable instructions, in the form agreed to prior to the date hereof (the “Irrevocable Transfer Agent Instructions”), to issue the Commitment Shares in accordance with the terms of this Agreement. The book-entry statement(s) representing the Commitment Shares shall bear the following restrictive legend (the “Restrictive Legend”) and no other legend whatsoever:

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES HAVE BEEN ACQUIRED FOR INVESTMENT AND MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS, UNLESS SOLD PURSUANT TO: (1) RULE 144 UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR (2) AN OPINION OF HOLDER'S COUNSEL, IN A FORM REASONABLY ACCEPTABLE TO COMPANY'S COUNSEL, THAT REGISTRATION IS NOT REQUIRED UNDER SAID ACT OR APPLICABLE STATE SECURITIES LAWS.

The Company warrants to the Investor that, while the Agreement is effective, no instruction other than the Irrevocable Transfer Agent Instructions referred to in this Section 6 will be given by the Company to the Transfer Agent with respect to the Commitment Shares, and, once the Registration Statement is declared effective and remains effective, and subject to the terms and conditions of the Registration Rights Agreement, the Commitment Shares shall otherwise be freely transferable on the books and records of the Company.

The Company agrees that, following the effective date of the initial Registration Statement, it will, no later than two (2) Business Days following the delivery by the Investor to the Company or the Transfer Agent of a certificate representing any Commitment Shares issued with the Restrictive Legend (or, in the case of Commitment Shares represented by book entries, delivery by the Investor to the Company or the Company's transfer agent of a legend removal request) cause the Commitment Shares to be delivered to the Investor's or its designee's specified Deposit/Withdrawal at Custodian (DWAC) account with DTC under its Fast Automated Securities Transfer (FAST) Program as DWAC Shares.

(b) Purchase Shares. Within one (1) Business Day from the date on which the Registration Statement is declared effective by the SEC, the Company shall issue to the Transfer Agent, and any subsequent transfer agent, (i) irrevocable instructions in the form agreed to prior to the date hereof (the "Commencement Irrevocable Transfer Agent Instructions") and (ii) the notice of effectiveness of the Registration Statement in a form acceptable to the Transfer Agent (the "Notice of Effectiveness of Registration Statement"), in each case to issue the Purchase Shares in accordance with the terms of this Agreement and the Registration Rights Agreement. All Purchase Shares to be issued from and after Commencement to or for the benefit of the Investor pursuant to this Agreement shall be issued only as DWAC Shares. The Company represents and warrants to the Investor that, while this Agreement is effective, no instruction other than as contemplated by the Commencement Irrevocable Transfer Agent Instructions and the Notice of Effectiveness of Registration Statement will be given by the Company to the Transfer Agent with respect to the Purchase Shares from and after Commencement, and no instruction or other communication to the Transfer Agent with respect to the issuance of the Purchase Shares shall be made without the approval of the Investor, which shall not be unreasonably withheld. The Company shall provide confirmation of receipt by the Transfer Agent of all instructions pursuant to the Commencement Irrevocable Transfer Agent Instructions with respect to Purchase Shares within one (1) Business Day of delivery of any Purchase Notice. The Purchase Shares covered by the Registration Statement, as long as it remains effective and subject to the terms and conditions of the Registration Rights Agreement, shall otherwise be freely transferable on the books and records of the Company.

7. CONDITIONS TO THE COMPANY'S RIGHT TO COMMENCE SALES OF SHARES OF COMMON STOCK.

The right of the Company hereunder to commence sales of Purchase Shares is subject to the satisfaction, or where legally permissible, the waiver of each of the following conditions:

- (a) The Investor shall have executed each of the Transaction Documents and delivered the same to the Company;

(b) The representations and warranties of the Investor shall be true and correct in all material respects (except to the extent that any of such representations and warranties is already qualified as to materiality in Section 3 above, in which case, such representations and warranties shall be true and correct without further qualification) as of the date hereof and as of the Commencement Date as though made at that time; and

(c) The Registration Statement covering the resale of all of the Commitment Shares and the Purchase Shares shall have been declared effective under the Securities Act by the SEC and the Company shall have delivered the Notice of Effectiveness to the Transfer Agent and no stop order with respect to the Registration Statement shall be pending or threatened by the SEC.

8. CONDITIONS TO THE INVESTOR'S OBLIGATION TO PURCHASE SHARES OF COMMON STOCK.

The obligation of the Investor to buy Purchase Shares under this Agreement is subject to the satisfaction or, where legally permissible, the waiver of each of the following conditions on or prior to the Commencement Date and, once such conditions have been initially satisfied, there shall not be any ongoing obligation to satisfy such conditions after the Commencement has occurred:

(a) The Company shall have executed each of the Transaction Documents and delivered the same to the Investor;

(b) The Company shall have issued or caused to be issued to the Investor a number of shares of Common Stock equal to the number of Commitment Shares, in accordance with Section 6;

(c) The Common Stock shall be listed on the Principal Market, trading in the Common Stock shall not have been suspended by the SEC or the Principal Market within the last 365 days, and the Company shall have filed with The Nasdaq Stock Market a Notification Form: Listing of Additional Shares for the listing of the Securities, and Nasdaq shall have raised no objection to the consummation of the transactions contemplated by this Agreement;

(d) The Investor shall have received the opinion and negative assurances letter of the Company's legal counsel dated as of the Commencement Date substantially in the forms agreed prior to the date of this Agreement by the Company's legal counsel and the Investor's legal counsel;

(e) The representations and warranties of the Company shall be true and correct in all material respects (except to the extent that any of such representations and warranties is already qualified as to materiality in Section 4 above, in which case, such representations and warranties shall be true and correct without further qualification) as of the date hereof and as of the Commencement Date as though made at that time (except for representations and warranties that speak as of a specific date, which shall be true and correct in all material respects as of such date) and the Company shall have performed, satisfied and complied in all material respects with the covenants, agreements and conditions required by the Transaction Documents to be performed, satisfied or complied with by the Company at or prior to the Commencement Date. The Investor shall have received a certificate, executed by the CEO, President or CFO of the Company, dated as of the Commencement Date, to the foregoing effect in the form attached hereto as Exhibit A;

(f) The Board of Directors of the Company shall have adopted Signing Resolutions, which shall be in full force and effect without any amendment or supplement thereto as of the Commencement Date;

(g) As of the Commencement Date, the Company shall have reserved out of its authorized and unissued Common Stock, solely for the purpose of effecting purchases of Purchase Shares hereunder, 25,000,000 shares of Common Stock;

(h) The Commencement Irrevocable Transfer Agent Instructions and the Notice of Effectiveness of Registration Statement, each shall have been delivered to and acknowledged in writing by the Company and the Transfer Agent (or any successor transfer agent);

(i) The Company shall have delivered to the Investor a certificate of good standing of the Company in the State of Delaware issued by the Secretary of State of the State of Delaware and a certificate or its equivalent evidencing the good standing of the Company as a foreign corporation in any other jurisdiction where the Company is duly qualified to conduct business, in each case, as of a date within ten (10) Business Days of the Commencement Date;

(j) The Company shall have delivered to the Investor a certified copy of the Charter as certified by the Secretary of State of the State of Delaware within ten (10) Business Days of the Commencement Date;

(k) The Company shall have delivered to the Investor a secretary's certificate executed by the Secretary of the Company, dated as of the Commencement Date, in the form attached hereto as **Exhibit C**;

(l) The Registration Statement covering the resale of the Commitment Shares and Purchase Shares shall have been declared effective under the Securities Act by the SEC and no stop order with respect to the Registration Statement shall be pending or threatened by the SEC. The Company shall have prepared and filed with the SEC, not later than one (1) Business Day after the effective date of the Registration Statement, a final and complete prospectus (the preliminary form of which shall be included in the Registration Statement) and shall have delivered to the Investor a true and complete copy thereof. Such prospectus shall be current and available for the resale by the Investor of all of the Securities covered thereby. The Current Report shall have been filed with the SEC, as required pursuant to Section 5(a). All reports, schedules, registrations, forms, statements, information and other documents required to have been filed by the Company with the SEC at or prior to the Commencement Date pursuant to the reporting requirements of the Exchange Act shall have been filed with the SEC within the applicable time periods prescribed for such filings under the Exchange Act;

(m) No Event of Default (as defined below) shall have occurred, and no event which, after notice and/or lapse of time, would reasonably be expected to become an Event of Default shall have occurred;

(n) The Exchange Cap shall not have been reached (to the extent the Exchange Cap is applicable pursuant to Section 2(d) hereof);

(o) All federal, state and local governmental laws, rules and regulations applicable to the transactions contemplated by the Transaction Documents and necessary for the execution, delivery and performance of the Transaction Documents and the consummation of the transactions contemplated thereby in accordance with the terms thereof shall have been complied with, and all consents, authorizations and orders of, and all filings and registrations with, all federal, state and local courts or governmental agencies and all federal, state and local regulatory or self-regulatory agencies necessary for the execution, delivery and performance of the Transaction Documents and the consummation of the transactions contemplated thereby in accordance with the terms thereof shall have been obtained or made, including, without limitation, in each case those required under the Securities Act, the Exchange Act, applicable state securities or "Blue Sky" laws or applicable rules and regulations of the Principal Market, or otherwise required by the SEC, the Principal Market or any state securities regulators;

(p) No statute, regulation, order, decree, writ, ruling or injunction shall have been enacted, entered, promulgated, threatened or endorsed by any federal, state or local or foreign court or governmental authority of competent jurisdiction which prohibits the consummation of or which would materially modify or delay any of the transactions contemplated by the Transaction Documents;

(q) No action, suit or proceeding before any federal, state, local or foreign arbitrator or any court or governmental authority of competent jurisdiction shall have been commenced or threatened, and no inquiry or investigation by any federal, state, local or foreign governmental authority of competent jurisdiction shall have been commenced or threatened, against the Company, or any of the officers, directors or affiliates of the Company, seeking to restrain, prevent or change the transactions contemplated by the Transaction Documents, or seeking material damages in connection with such transactions; and

(r) The Company shall have provided the Investor with the information reasonably requested by the Investor in connection with its due diligence requests in accordance with the terms of Section 5(f) hereof.

9. INDEMNIFICATION.

In consideration of the Investor's execution and delivery of the Transaction Documents and acquiring the Purchase Shares hereunder and in addition to all of the Company's other obligations under the Transaction Documents, the Company shall defend, protect, indemnify and hold harmless the Investor and all of its affiliates, equityholders, members, managers, officers, directors and employees and any of the foregoing Person's agents or other representatives (including, without limitation, those retained in connection with the transactions contemplated by this Agreement) (collectively, the "Indemnitees") from and against any and all actions, causes of action, suits, claims, losses, costs, penalties, fees, liabilities and damages, and reasonable expenses in connection therewith (irrespective of whether any such Indemnitee is a party to the action for which indemnification hereunder is sought), and including reasonable and documented attorneys' fees and disbursements (the "Indemnified Liabilities"), incurred by any Indemnitee as a result of, or arising out of, or relating to (a) any misrepresentation or breach of any representation or warranty made by the Company in the Transaction Documents or any other certificate, instrument or document executed by the Company contemplated hereby or thereby, (b) any breach of any covenant, agreement or obligation of the Company contained in the Transaction Documents or any other certificate, instrument or document executed by the Company contemplated hereby or thereby, (c) any cause of action, suit or claim brought or made against such Indemnitee and arising out of or resulting from the execution, delivery, performance or enforcement of the Transaction Documents or any other certificate, instrument or document contemplated hereby or thereby, other than, in the case of clause (c) with respect to Indemnified Liabilities which directly and primarily result from the fraud, gross negligence or willful misconduct of an Indemnitee. The indemnity in this Section 9 shall not apply to amounts paid in settlement of any claim if such settlement is effected without the prior written consent of the Company, which consent shall not be unreasonably withheld, conditioned or delayed. To the extent that the foregoing undertaking by the Company may be unenforceable for any reason, the Company shall make the maximum contribution to the payment and satisfaction of each of the Indemnified Liabilities which is permissible under applicable law. Payment under this indemnification shall be made within thirty (30) days from the date the Investor makes written request for it. A certificate containing reasonable detail as to the amount of such indemnification submitted to the Company by the Investor shall be conclusive evidence, absent manifest error, of the amount due from the Company to the Investor, provided that the Indemnitee shall undertake to repay any amounts paid to it hereunder if it is ultimately determined, by a final and non-appealable order of a court of competent jurisdiction, that the Indemnitee is not entitled to be indemnified against such Indemnified Liabilities by the Company pursuant to this Agreement. If any action shall be brought against any Indemnitee in respect of which indemnity may be sought pursuant to this Agreement, such Indemnitee shall promptly notify the Company in writing, and the Company shall have the right to assume the defense thereof with counsel of its own choosing reasonably acceptable to the Indemnitee. Any Indemnitee shall have the right to employ separate counsel in any such action and participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Indemnitee, except to the extent that (i) the employment thereof has been specifically authorized by the Company in writing, (ii) the Company has failed after a reasonable period of time to assume such defense and to employ counsel or (iii) in such action there is, in the reasonable opinion of such separate counsel, a material conflict on any material issue between the position of the Company and the position of such Indemnitee, in which case the Company shall be responsible for the reasonable fees and expenses of no more than one such separate counsel (plus local counsel). The Company shall not, without the consent of the Indemnitee, consent to the entry of any judgment or enter into any settlement or other compromise which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnitee of a release from all liability in respect to such claim or litigation or which includes any admission as to fault, culpability or failure to act on the part of such Indemnitee.

10. EVENTS OF DEFAULT.

An “Event of Default” shall be deemed to have occurred at any time as any of the following events occurs:

(a) the effectiveness of a Registration Statement registering the sale or resale of the Securities lapses for any reason (including, without limitation, the issuance of a stop order or similar order) or such registration statement (or the prospectus forming a part thereof) is unavailable to the Investor for sale or resale of any or all of the Securities to be issued to the Investor under the Transaction Documents that are required to be included therein, and such lapse or unavailability continues for a period of ten (10) consecutive Business Days or for more than an aggregate of thirty (30) Business Days in any 365-day period, but excluding a lapse or unavailability where (i) the Company terminates a Registration Statement after the Investor has confirmed in writing that all of the Securities covered thereby have been resold or (ii) the Company supersedes one Registration Statement with another Registration Statement, including (without limitation) by terminating a prior Registration Statement when it is effectively replaced with a new Registration Statement covering Securities (provided in the case of this clause (ii) that all of the Securities covered by the superseded (or terminated) Registration Statement that have not theretofore been resold are included in the superseding (or new) Registration Statement);

(b) the suspension of the Common Stock from trading on the Principal Market for a period of at least one (1) Business Day, provided that the Company may not direct the Investor to purchase any shares of Common Stock during any such suspension;

(c) the delisting of the Common Stock from The NASDAQ Capital Market provided, however, that the Common Stock is not immediately thereafter trading on The NASDAQ Global Select Market, The NASDAQ Global Market, the New York Stock Exchange, the NYSE American, the NYSE Arca, the OTC Bulletin Board, or the OTCQB or the OTCQX operated by the OTC Markets Group, Inc. (or any nationally recognized successor to any of the foregoing);

(d) the failure for any reason by the Transfer Agent to issue the Purchase Shares to the Investor within two (2) Business Days after the applicable Purchase Date, Accelerated Purchase Date or Additional Accelerated Purchase Date (as applicable) on which the Investor is entitled to receive such Purchase Shares;

(e) the Company breaches any representation, warranty, covenant or other term or condition under this Agreement, any other Transaction Document or any other certificate, instrument or document executed by the Company contemplated hereby or thereby, if such breach would reasonably be expected to have a Material Adverse Effect and except, in the case of a breach of a covenant which is reasonably curable, only if such breach continues for a period of at least five (5) Business Days;

(f) if any Person commences a proceeding against the Company pursuant to or within the meaning of any Bankruptcy Law;

(g) if the Company is at any time insolvent, or, pursuant to or within the meaning of any Bankruptcy Law, (i) commences a voluntary case, (ii) consents to the entry of an order for relief against it in an involuntary case, (iii) consents to the appointment of a Custodian of it or for all or substantially all of its property, or (iv) makes a general assignment for the benefit of its creditors or is generally unable to pay its debts as the same become due;

(h) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that (i) is for relief against the Company in an involuntary case, (ii) appoints a Custodian of the Company or for all or substantially all of its property, or (iii) orders the liquidation of the Company; or

(i) if at any time the Company is not eligible to transfer its Common Stock electronically as DWAC Shares or if the Company fails to maintain the service of its Transfer Agent (or a successor Transfer Agent) with respect to the issuance of Purchase Shares under this Agreement, including but not limited to, maintaining the effectiveness of the Commencement Irrevocable Transfer Instructions, payment of all fees owed to the Transfer Agent and satisfaction of all conditions required by the Transfer Agent to issue Purchase Shares pursuant to the Commencement Irrevocable Transfer Agent Instructions.

In addition to any other rights and remedies under applicable law and this Agreement, so long as (i) an Event of Default has occurred and is continuing, or if any event that, after notice and/or lapse of time, would reasonably be expected to become an Event of Default, has occurred and is continuing or (ii) if at any time after the Commencement Date, the Exchange Cap is reached (to the extent the Exchange Cap is applicable pursuant to Section 2(d) hereof), the Company shall not deliver to the Investor any Regular Purchase Notice, Accelerated Purchase Notice or Additional Accelerated Purchase Notice.

11. TERMINATION

This Agreement may be terminated only as follows:

(a) If pursuant to or within the meaning of any Bankruptcy Law, the Company commences a voluntary case or any Person commences a proceeding against the Company, a Custodian is appointed for the Company or for all or substantially all of its property, or the Company makes a general assignment for the benefit of its creditors (any of which would be an Event of Default as described in Sections 10(f), 10(g) and 10(h) hereof), this Agreement shall automatically terminate without any liability or payment to the Company (except as set forth below) without further action or notice by any Person.

(b) In the event that the Commencement shall not have occurred on or before August 1, 2023, due to the failure to satisfy the conditions set forth in Sections 7 and 8 above with respect to the Commencement, then this Agreement may be terminated by any party at the close of business on August 1, 2023 or thereafter, in each case without liability of such party to the other party (except as set forth below); provided, however, that the right to terminate this Agreement under this Section 11(b) shall not be available to any party if such party is then in breach of any covenant or agreement contained in this Agreement or any representation or warranty of such party contained in this Agreement fails to be true and correct such that the conditions set forth in Section 7(b) or Section 8(e), as applicable, could not then be satisfied.

(c) At any time after the Commencement Date, the Company shall have the option to terminate this Agreement for any reason or for no reason by delivering notice (a "Company Termination Notice") to the Investor electing to terminate this Agreement without any liability whatsoever of any party to any other party under this Agreement (except as set forth below). The Company Termination Notice shall not be effective until one (1) Business Day after it has been received by the Investor.

(d) This Agreement shall automatically terminate on the date that the Company sells and the Investor purchases the full Available Amount as provided herein, without any action or notice on the part of any party and without any liability whatsoever of any party to any other party under this Agreement (except as set forth below).

(e) If, for any reason or for no reason, the full Available Amount has not been purchased in accordance with Section 2 of this Agreement by the Maturity Date, this Agreement shall automatically terminate on the Maturity Date, without any action or notice on the part of any party and without any liability whatsoever of any party to any other party under this Agreement (except as set forth below).

Except as set forth in Sections 11(a) (in respect of an Event of Default under Sections 10(f), 10(g) and 10(h)), and 11(d), any termination of this Agreement pursuant to this Section 11 shall be effected by written notice from the Company to the Investor, or the Investor to the Company, as the case may be, setting forth the basis for the termination hereof. The representations and warranties and covenants of the Company and the Investor contained in Sections 3, 4, 5, and 6 hereof, the indemnification provisions set forth in Section 9 hereof and the agreements and covenants set forth in Sections 10, 11 and 12 shall survive the execution and delivery of this Agreement and any termination of this Agreement. No termination of this Agreement shall (i) affect the Company's or the Investor's rights or obligations under (A) this Agreement with respect to any pending Regular Purchases, Accelerated Purchases, or Additional Accelerated Purchases, and the Company and the Investor shall complete their respective obligations with respect to any pending Regular Purchases, Accelerated Purchases and Additional Accelerated Purchases under this Agreement and (B) the Registration Rights Agreement, which shall survive any such termination in accordance with its terms, or (ii) be deemed to release the Company or the Investor from any liability for intentional misrepresentation or willful breach of any of the Transaction Documents.

12. MISCELLANEOUS.

(a) Governing Law; Jurisdiction; Jury Trial. The corporate laws of the State of Delaware shall govern all issues concerning the relative rights of the Company and its stockholders. All other questions concerning the construction, validity, enforcement and interpretation of this Agreement and the other Transaction Documents shall be governed by the internal laws of the State of New York, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of New York or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of and venue in the U.S. District Court for the Southern District of New York or, if that court does not have subject matter jurisdiction, in any state court located in the City and County of New York, for the adjudication of any dispute hereunder or under the other Transaction Documents or in connection herewith or therewith, or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof to such party at the address for such notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. **EACH PARTY HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE, AND AGREES NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION HEREWITH OR ARISING OUT OF THIS AGREEMENT OR ANY TRANSACTION CONTEMPLATED HEREBY.**

(b) Counterparts. This Agreement may be executed in two or more identical counterparts, all of which shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to the other party. Signatures transmitted by Adobe Sign, DocuSign, RightSignature, electronic mail, or other digital or electronic means will be treated as original signatures for all purposes hereunder, each of which shall be of the same legal effect, validity, and enforceability as a manually executed signature.

(c) Headings. The headings of this Agreement are for convenience of reference and shall not form part of, or affect the interpretation of, this Agreement.

(d) Severability. If any provision of this Agreement shall be invalid or unenforceable in any jurisdiction, such invalidity or unenforceability shall not affect the validity or enforceability of the remainder of this Agreement in that jurisdiction or the validity or enforceability of any provision of this Agreement in any other jurisdiction.

(e) Entire Agreement. Except as to the Company's obligation in respect of fees and expenses due and payable in connection with the negotiation and entry into the Transaction Documents, which are set forth in the Term Sheet dated March 17, 2023, the Transaction Documents supersede all other prior oral or written agreements between the Investor, the Company, their affiliates and Persons acting on their behalf with respect to the subject matter thereof, and this Agreement, the other Transaction Documents and the instruments referenced herein contain the entire understanding of the parties with respect to the matters covered herein and therein and, except as specifically set forth herein or therein, neither the Company nor the Investor makes any representation, warranty, covenant or undertaking with respect to such matters. The Company acknowledges and agrees that it has not relied on, in any manner whatsoever, any representations or statements, written or oral, other than as expressly set forth in the Transaction Documents. The Investor acknowledges and agrees that it has not relied on, in any manner whatsoever, any representations or statements, written or oral, other than as expressly set forth in the Transaction Documents.

(f) Notices. Any notices, consents or other communications required or permitted to be given under the terms of this Agreement must be in writing and will be deemed to have been delivered: (i) upon receipt when delivered personally; (ii) upon receipt when sent by facsimile or email (provided confirmation of transmission is mechanically or electronically generated and kept on file by the sending party); or (iii) one (1) Business Day after deposit with a nationally recognized overnight delivery service, in each case properly addressed to the party to receive the same. The addresses for such communications shall be:

If to the Company:

Advent Technologies Holdings, Inc.
500 Rutherford Avenue, Suite 102
Boston, MA 02129
E-mail: jcoffey@advent.energy
Attention: James F. Coffey, Chief Operating Officer and General Counsel

With a copy to (which shall not constitute notice or service of process):

Manatt, Phelps & Phillips, LLP
2049 Century Park East, Suite 1700
Los Angeles, CA 90067
Telephone: 310-312-4252
Email: kblair@manatt.com
Attention: Katherine J. Blair, Esq.

If to the Investor:

Lincoln Park Capital Fund, LLC
440 North Wells, Suite 410
Chicago, IL 60654
Telephone: 312-822-9300

With a copy to (which shall not constitute notice or service of process):

Katten Muchin Rosenman LLP
525 W. Monroe St.
Chicago, IL 60661
Telephone: (312) 902-5493
E-mail: mark.wood@katten.com
Attention: Mark D. Wood, Esq.

If to the Transfer Agent:

Continental Stock Transfer & Trust Company
1 State Street 30th Floor
New York, NY 10004-1561
Email: agois@continentalstock.com
Attention: Ana Gois, Vice President and Account Manager

or at such other address, email address and/or facsimile number and/or to the attention of such other Person as the recipient party has specified by written notice given to each other party three (3) Business Days prior to the effectiveness of such change. Written confirmation of receipt (A) given by the recipient of such notice, consent or other communication, (B) mechanically or electronically generated by the sender's facsimile machine or email account containing the time, date, and recipient facsimile number or email address, as applicable, or (C) provided by a nationally recognized overnight delivery service, shall be rebuttable evidence of personal service, receipt by facsimile or email or deposit with a nationally recognized overnight delivery service in accordance with clause (i), (ii) or (iii) above, respectively.

(g) Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties and their respective successors and assigns. The Company shall not assign this Agreement or any rights or obligations hereunder without the prior written consent of the Investor, including by merger or consolidation. The Investor may not assign its rights or obligations under this Agreement.

(h) No Third Party Beneficiaries. This Agreement is intended for the benefit of the parties hereto and their respective permitted successors and assigns, and is not for the benefit of, nor may any provision hereof be enforced by, any other Person.

(i) Publicity. The Company shall afford the Investor and its counsel with the opportunity to review and comment upon, shall consult with the Investor and its counsel on the form and substance of, and shall give due consideration to all such comments from the Investor or its counsel on, any press release, any Current Report on Form 8-K, or any other public disclosure by or on behalf of the Company relating to the Investor, its purchases hereunder or any aspect to the Transaction Documents or the transactions contemplated thereby, not less than 24 hours prior to the issuance, filing or public disclosure thereof. The Investor must be provided with a final version of any such press release, Current Report or other public disclosure at least 24 hours prior to any release, filing or use by the Company thereof; provided that the Company shall not be required to provide to the Investor any disclosures that are materially similar to those previously reviewed by the Investor.

(j) Further Assurances. Each party shall do and perform, or cause to be done and performed, all such further acts and things, and shall execute and deliver all such other agreements, certificates, instruments and documents, as the other party may reasonably request in order to consummate and make effective, as soon as reasonably possible, the Commencement, and to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby.

(k) No Financial Advisor, Placement Agent, Broker or Finder. The Company represents and warrants to the Investor that it has not engaged any financial advisor, placement agent, broker or finder in connection with the transactions contemplated hereby. The Investor represents and warrants to the Company that it has not engaged any financial advisor, placement agent, broker or finder in connection with the transactions contemplated hereby. The Company shall be responsible for the payment of any fees or commissions, if any, of any financial advisor, placement agent, broker or finder relating to or arising out of the transactions contemplated hereby. The Company shall pay, and hold the Investor harmless against, any liability, loss or expense (including, without limitation, reasonable attorneys' fees and out of pocket expenses) arising in connection with any such claim made by a third party for any such fees or commissions.

(l) No Strict Construction; Rules of Construction. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party. For the purposes of this Agreement, except to the extent that the context otherwise requires: (i) when a reference is made in this Agreement to an Article, Section, Exhibit or Schedule, such reference is to an Article or Section of, or an Exhibit or Schedule to, this Agreement unless otherwise indicated; (ii) headings for this Agreement are for reference purposes only and do not affect in any way the meaning or interpretation of this Agreement; (iii) whenever the words "include," "includes" or "including" (or similar terms) are used in this Agreement, they are deemed to be followed by the words "without limitation"; (iv) the words "hereof," "herein" and "hereunder" and words of similar import, when used in this Agreement, refer to this Agreement as a whole and not to any particular provision of this Agreement; (v) the definitions contained in this Agreement are applicable to the singular as well as the plural forms of such terms;; (vi) references to a Person are also to its permitted successors and assigns; and (vii) the use of "or" is not intended to be exclusive unless expressly indicated otherwise.

(m) Remedies, Other Obligations, Breaches and Injunctive Relief. The Investor's remedies provided in this Agreement, including, without limitation, the Investor's remedies provided in Section 9, shall be cumulative and in addition to all other remedies available to the Investor under this Agreement, at law or in equity (including a decree of specific performance and/or other injunctive relief). No remedy of the Investor contained herein shall be deemed a waiver of compliance with the provisions giving rise to such remedy and nothing herein shall limit the Investor's right to pursue actual damages for any failure by the Company to comply with the terms of this Agreement. The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Investor and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the Investor shall be entitled, in addition to all other available remedies, to an injunction restraining any breach, without the necessity of showing economic loss and without any bond or other security being required.

(n) Enforcement Costs. If: (i) this Agreement is placed by the Investor in the hands of an attorney for enforcement or is enforced by the Investor through any legal proceeding; (ii) an attorney is retained to represent the Investor in any bankruptcy, reorganization, receivership or other proceedings affecting creditors' rights and involving a claim under this Agreement; or (iii) subject to Section 9, an attorney is retained to represent the Investor in any other proceedings whatsoever in connection with this Agreement, then the Company shall pay to the Investor, as incurred by the Investor, all reasonable costs and expenses including attorneys' fees incurred in connection therewith, in addition to all other amounts due hereunder.

(o) Amendment and Waiver; Failure or Indulgence Not Waiver. No provision of this Agreement (i) may be amended other than by a written instrument signed by both parties hereto and (ii) may be waived other than in a written instrument signed by the party against whom enforcement of such waiver is sought. No failure or delay in the exercise of any power, right or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such power, right or privilege preclude other or further exercise thereof or of any other right, power or privilege.

* * * * *

IN WITNESS WHEREOF, the Investor and the Company have caused this Purchase Agreement to be duly executed as of the date first written above.

THE COMPANY:

ADVENT TECHNOLOGIES HOLDINGS, INC.

By: /s/ James F. Coffey
Name: James F. Coffey
Title: Chief Operating Officer and General Counsel

THE INVESTOR:

LINCOLN PARK CAPITAL FUND, LLC

BY: LINCOLN PARK CAPITAL, LLC

BY: ROCKLEDGE CAPITAL CORPORATION

By: /s/ Joshua Scheinfeld
Name: Joshua Scheinfeld
Title: President

EXHIBITS

ExhibitA Form of Officer's Certificate
ExhibitB Form of Signing Resolutions
ExhibitC Form of Secretary's Certificate

EXHIBIT A

FORM OF OFFICER'S CERTIFICATE

This Officer's Certificate ("**Certificate**") is being delivered pursuant to Section 8(e) of that certain Purchase Agreement dated as of April [●], 2023, ("**Purchase Agreement**"), by and between **ADVENT TECHNOLOGIES HOLDINGS, INC.**, a Delaware corporation (the "**Company**"), and **LINCOLN PARK CAPITAL FUND, LLC** (the "**Investor**"). Terms used herein and not otherwise defined shall have the meanings ascribed to them in the Purchase Agreement.

The undersigned, Vasilis Gregoriou, Chief Executive Officer of the Company, hereby certifies, on behalf of the Company and not in his individual capacity, as follows:

1. I am the Chief Executive Officer of the Company;

2. The representations and warranties of the Company contained in the Purchase Agreement are true and correct in all material respects (except to the extent that any of such representations and warranties is already qualified as to materiality in Section 4 of the Purchase Agreement, in which case, such representations and warranties are true and correct without further qualification) as of the date of the Purchase Agreement and as of the Commencement Date as though made at that time (except for representations and warranties that speak as of a specific date, in which case such representations and warranties are true and correct in all material respects as of such date);

3. The Company has performed, satisfied and complied in all material respects with covenants, agreements and conditions required by the Transaction Documents to be performed, satisfied or complied with by the Company at or prior to the Commencement Date, to the extent not otherwise waived; and

4. The Company has not taken any steps, and does not currently expect to take any steps, to seek protection pursuant to any Bankruptcy Law nor does the Company or any of its Subsidiaries have any knowledge or reason to believe that its creditors intend to initiate involuntary bankruptcy or insolvency proceedings. The Company is financially solvent and is generally able to pay its debts as they become due.

IN WITNESS WHEREOF, I have hereunder signed my name on this ___ day of _____, 2023.

Name: _____
Title: _____

The undersigned as Secretary of **ADVENT TECHNOLOGIES HOLDINGS, INC.**, a Delaware corporation, hereby certifies that Vasilis Gregoriou is the duly elected, appointed, qualified and acting Chief Executive Officer of the Company, and that the signature appearing above is his genuine signature.

_____, Secretary

Exhibit B

**FORM OF COMPANY RESOLUTIONS
FOR SIGNING PURCHASE AGREEMENT
UNANIMOUS WRITTEN CONSENT OF
ADVENT TECHNOLOGIES HOLDINGS, INC.**

In accordance with the corporate laws of the state of Delaware, the undersigned, constituting all of the members of the Board of Directors (the “*Board*”) of **ADVENT TECHNOLOGIES HOLDINGS, INC.**, a Delaware corporation (the “*Company*”), hereby adopt the following resolutions by unanimous written consent and direct that this consent be filed with the minutes of the proceedings of the Board:

WHEREAS, there has been presented to the Board a draft of the Purchase Agreement (the “*Purchase Agreement*”) by and between the Company and Lincoln Park Capital Fund, LLC (“*Lincoln Park*”), providing for the purchase by Lincoln Park of up to Fifty Million Dollars (\$50,000,000) of the Company’s common stock, \$0.0001 par value per share (the “*Common Stock*”) and a draft of the Registration Rights Agreement (the “*Registration Rights Agreement*”) by and between the Company and Lincoln Park providing for the registration of the shares of the Company’s Common Stock issuable in respect of the Purchase Agreement on behalf of the Company; and

WHEREAS, after careful consideration of the Purchase Agreement, the documents incident thereto and other factors deemed relevant by the Board, the Board has determined that it is advisable and in the best interests of the Company and its stockholders to engage in the transactions contemplated by the Purchase Agreement, including, but not limited to, the payment of \$975,000 to Lincoln Park as a commitment fee in the form of 635,593 shares of Common Stock (the “*Commitment Shares*”), and the sale of shares of Common Stock to Lincoln Park up to the available amount under the Purchase Agreement (the “*Purchase Shares*”) and to register such shares as contemplated by the Registration Rights Agreement.

Transaction Documents

NOW, THEREFORE, BE IT RESOLVED, that the transactions described in the Purchase Agreement are hereby approved and each of _____ and _____ (the “*Authorized Officers*”) are severally authorized to execute and deliver the Purchase Agreement, and any other agreements or documents contemplated thereby including, without limitation, the Registration Rights Agreement, with such amendments, changes, additions and deletions as the Authorized Officers may deem to be appropriate and approve on behalf of, the Company, such approval to be conclusively evidenced by the signature of an Authorized Officer thereon; and

FURTHER RESOLVED, that the terms and provisions of the Registration Rights Agreement by and among the Company and Lincoln Park are hereby approved and the Authorized Officers are authorized to execute and deliver the Registration Rights Agreement (pursuant to the terms of the Purchase Agreement), with such amendments, changes, additions and deletions as the Authorized Officer may deem appropriate and approve on behalf of, the Company, such approval to be conclusively evidenced by the signature of an Authorized Officer thereon; and

FURTHER RESOLVED, that the terms and provisions of the forms of Irrevocable Transfer Agent Instructions, Commencement Irrevocable Transfer Agent Instructions and Notice of Effectiveness of Registration Statement (collectively, the “*Instructions*”) are hereby approved and the Authorized Officers are authorized to execute and deliver the Instructions on behalf of the Company in accordance with the Purchase Agreement, with such amendments, changes, additions and deletions as the Authorized Officers may deem appropriate and approve on behalf of, the Company, such approval to be conclusively evidenced by the signature of an Authorized Officer thereon; and

Execution of Purchase Agreement

FURTHER RESOLVED, that the Company be and it hereby is authorized to execute the Purchase Agreement providing for the purchase of up to Fifty Million Dollars (\$50,000,000) of the Company's common stock; and

Issuance of Common Stock

FURTHER RESOLVED, that the Company is hereby authorized to issue to Lincoln Park 635,593 shares of Common Stock as the Commitment Shares, and that upon issuance of the Commitment Shares pursuant to the Purchase Agreement the Commitment Shares shall be duly authorized, validly issued, fully paid and nonassessable with no personal liability attaching to the ownership thereof; and

FURTHER RESOLVED, that the Company is hereby authorized to issue shares of Common Stock upon the purchase of Purchase Shares up to the Available Amount under the Purchase Agreement in accordance with the terms of the Purchase Agreement and that, upon issuance of the Purchase Shares pursuant to the Purchase Agreement, the Purchase Shares will be duly authorized, validly issued, fully paid and nonassessable with no personal liability attaching to the ownership thereof; and

FURTHER RESOLVED, that the Company shall initially reserve 25,000,000 shares of Common Stock for issuance as Purchase Shares under the Purchase Agreement.

Filings with the SEC

FURTHER RESOLVED, The Authorized Officers are hereby authorized, in the name and on behalf of the Company, to prepare, execute and file, or cause to be filed, with the SEC a Registration Statement on Form S-3 to register the offer and sale of the Purchase Shares and Commitment Shares, which Registration Statement shall be substantially in the form previously distributed to the Board, with such changes therein, additions thereto and deletions therefrom as the Authorized Officers, or any of them, shall approve, such approval to be conclusively evidenced by the filing thereof, and any prospectuses relating to the sale of the Securities (including, without limitation, free writing prospectuses pursuant to Rule 433 of the Securities Act of 1933, as amended (the "Securities Act")), any registration statement under the Securities Act relating to the registration of additional Securities, and any amendments (including, without limitation, post-effective amendments) or supplements to such documents as the Authorized Officers determine to be necessary or advisable, together with all documents required to be filed as exhibits and schedules to such Registration Statement, or any amendments or supplements thereto, and all certificates, letters, instruments, applications and other documents which may be required to be filed with the SEC with respect to the registration and offering of the Purchase Shares and Commitment Shares (collectively, the "Registration Statement").

FURTHER RESOLVED, that the Authorized Officers be, and each of them hereby is, authorized and empowered, for and on behalf of the Company, to file any notifications required to be filed by the Company with Nasdaq and the Financial Industry Regulatory Authority, Inc. as a result of the Purchase Agreement or the issuance of the Purchase Shares and Commitment Shares and to apply to list all the Offering Shares on Nasdaq; and that the Authorized Officers be, and each of them hereby is, authorized and empowered, for and on behalf of the Company, to cause the execution and delivery of any and all documents, to cause the payment of all listing and related fees and to take any and all further actions they deem necessary, appropriate or desirable to carry out the intent of the foregoing, any such determination to be conclusively evidenced by the execution and delivery of such documents or instruments or the doing or performing of such acts or things.

Approval of Actions

FURTHER RESOLVED, that, without limiting the foregoing, the Authorized Officers are, and each of them hereby is, authorized and directed to proceed on behalf of the Company and to take all such steps as deemed necessary or appropriate, with the advice and assistance of counsel, to cause the Company to consummate the agreements referred to herein and to perform its obligations under such agreements; and

FURTHER RESOLVED, that the Authorized Officers be, and each of them hereby is, authorized, empowered and directed on behalf of and in the name of the Company, to take or cause to be taken all such further actions and to execute and deliver or cause to be executed and delivered all such further agreements, amendments, documents, certificates, reports, schedules, applications, notices, letters and undertakings and to incur and pay all such fees and expenses as in their judgment shall be necessary, proper or desirable to carry into effect the purpose and intent of any and all of the foregoing resolutions, and that all actions heretofore taken by any officer or director of the Company in connection with the transactions contemplated by the agreements described herein are hereby approved, ratified and confirmed in all respects.

EXHIBIT C

FORM OF SECRETARY'S CERTIFICATE

This Secretary's Certificate ("Certificate") is being delivered pursuant to Section 8(k) of that certain Purchase Agreement dated as of April [●], 2023 ("Purchase Agreement"), by and between **ADVENT TECHNOLOGIES HOLDINGS, INC.**, a Delaware corporation (the "Company"), and **LINCOLN PARK CAPITAL FUND, LLC** (the "Investor"), pursuant to which the Company may sell to the Investor up to Fifty Million Dollars (\$50,000,000) of the Company's Common Stock, \$0.0001 par value per share (the "Common Stock"). Terms used herein and not otherwise defined shall have the meanings ascribed to them in the Purchase Agreement.

The undersigned, _____, Secretary of the Company, hereby certifies, on behalf of the Company and not in his individual capacity, as follows:

1. I am the Secretary of the Company.

2. Attached hereto as Exhibit A and Exhibit B are true, correct and complete copies of the Company's Amended and Restated Bylaws ("Bylaws") and Amended and Restated Certificate of Incorporation, as amended by a Certificate of Amendment ("Charter"), and no action has been taken by the Company, its directors, officers or stockholders, in contemplation of the filing of any further amendment relating to or affecting the Bylaws or Charter.

3. Attached hereto as Exhibit C are true, correct and complete copies of the resolutions duly adopted by the Board of Directors of the Company by unanimous written consent effective as of [●], 2023. Such resolutions have not been amended, modified or rescinded and remain in full force and effect and such resolutions are the only resolutions adopted by the Board of Directors, or any committee thereof, or the stockholders of the Company relating to or affecting (i) the entering into and performance of the Purchase Agreement, or the issuance, offering and sale of the Purchase Shares and the Commitment Shares and (ii) and the performance of the Company of its obligation under the Transaction Documents as contemplated therein.

4. As of the date hereof, the authorized, issued and reserved capital stock of the Company is as set forth on Exhibit D hereto.

IN WITNESS WHEREOF, I have hereunder signed my name on this ____ day of _____, 2023.

Secretary

The undersigned as Chief Executive Officer of **ADVENT TECHNOLOGIES HOLDINGS, INC.**, a Delaware corporation, hereby certifies that _____ is the duly elected, appointed, qualified and acting Secretary of Advent Technologies Holdings, Inc., and that the signature appearing above is his genuine signature.

Chief Executive Officer

ADVENT TECHNOLOGIES HOLDINGS, INC.
500 RUTHERFORD AVENUE
SUITE 102
BOSTON, MA 02129



VOTE BY INTERNET
Before The Meeting - Go to www.proxyvote.com or scan the QR Barcode above

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 p.m. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

During The Meeting - Go to www.virtualshareholdermeeting.com/ADN2023

You may attend the meeting via the Internet and vote during the meeting. Have the information that is printed in the box marked by the arrow available and follow the instructions.

VOTE BY PHONE - 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions up until 11:59 p.m. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

V14748-P93764

KEEP THIS PORTION FOR YOUR RECORDS
DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

ADVENT TECHNOLOGIES HOLDINGS, INC.

The Board of Directors recommends you vote FOR all Proposals:

1. Election of Directors

For All Withhold All For All Except

To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below.

Nominees:

To be elected for terms expiring in 2026:

- 01) Vassilios Gregoriou
02) Emory De Castro
03) Panoraia Gourdoupi

2. Approve the amendment to the Second Amended and Restated Certificate of Incorporation to increase the number of authorized shares of Common Stock from 110,000,000 to 500,000,000 and in conjunction therewith, to increase the aggregate number of authorized shares to 501,000,000.
3. Approve the amendment to the Second Amended and Restated Certificate of Incorporation to permit the exculpation of officers.
4. Approve the potential issuance and sale of 20% or more of our Common Stock pursuant to a purchase agreement with Lincoln Park Capital Fund, LLC for purposes of complying with Nasdaq Listing Rule 5635(d).
5. Ratify the appointment of Ernst & Young (Hellas) Certified Auditors Accountants S.A. as Advent Technologies Holdings, Inc.'s independent registered public accounting firm for the fiscal year ending December 31, 2023.

For Against Abstain

NOTE: Each of the persons named as proxies herein are authorized, in such person's discretion, to vote upon such other matters as may properly come before the meeting or any adjournment thereof.

Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by authorized officer.

Signature [PLEASE SIGN WITHIN BOX] Date

Signature (Joint Owners) Date

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:

The Notice and Proxy Statement and Annual Report are available at www.proxyvote.com.

V14749-P93764

PROXY

**THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS OF
ADVENT TECHNOLOGIES HOLDINGS, INC.**

The undersigned hereby appoints Vassilios Gregoriou and Kevin Brackman, and each of them, with power to act without the other and with power of substitution, as proxies and attorneys-in-fact and hereby authorizes them to represent and vote, as provided on the other side, all the shares of Advent Technologies Holdings, Inc. Common Stock which the undersigned is entitled to vote and, in their discretion, to vote upon such other business as may properly come before the Annual Meeting of Stockholders of the Company to be held June 13, 2023 virtually at www.virtualshareholdermeeting.com/ADN2023 or any adjournment thereof, with all powers which the undersigned would possess if present at the Meeting.

THIS PROXY CARD, WHEN PROPERLY EXECUTED, WILL BE VOTED IN THE MANNER DIRECTED HEREIN BY THE UNDERSIGNED. IF NO DIRECTION IS MADE BUT THE CARD IS SIGNED, THIS PROXY CARD WILL BE VOTED FOR THE ELECTION OF ALL NOMINEES UNDER PROPOSAL 1, FOR PROPOSALS 2-5, AND IN THE DISCRETION OF THE PROXIES WITH RESPECT TO SUCH OTHER BUSINESS AS MAY PROPERLY COME BEFORE THE MEETING.

(Continued and to be marked, dated and signed, on the other side)