

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

FORM S-3
REGISTRATION STATEMENT
 Under The Securities Act of 1933

GLOBAL CLEAN ENERGY HOLDINGS, INC.
 (Exact name of registrant as specified in its charter)

Delaware
 (State or other jurisdiction of
 incorporation or organization)

87-0407858
 (I.R.S. Employer Identification Number)

2790 Skypark Drive
 Suite 105
 Torrance, California 90505
 (310) 641-4234

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

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Approximate date of commencement of proposed sale to the public: From time to time, after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large Accelerated filer
 Non-accelerated filer

Accelerated filer
 Smaller reporting company
 Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has selected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until this Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. The selling stockholders may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED MAY 31, 2022

PROSPECTUS



5,017,008 Shares of Common Stock

This prospectus relates to the sale from time to time by the selling stockholders identified in this prospectus of up to an aggregate of 5,017,008 shares of our common stock, par value \$0.001 per share, issuable upon exercise of outstanding common stock purchase warrants. We are not offering any shares of common stock under this prospectus and will not receive any proceeds from the sale or other disposition of the shares covered hereby.

The selling stockholders (which term includes their respective donees, pledgees, transferees or other successors-in-interest) may, from time to time, sell, transfer or otherwise dispose of the shares or interests therein on any stock exchange, market or trading facility on which the shares are traded or in private transactions at fixed prices, at market prices prevailing at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. The selling stockholders will bear all fees, discounts, concessions or commissions of broker-dealers or agents in connection with the offering of the shares by the selling stockholders. See "Plan of Distribution" beginning on page 12 of this prospectus for more information about how the selling stockholders may sell their shares of common stock.

Our common stock is traded on the OTCQB Venture Market under the symbol "GCEH". On May 27, 2022, the last reported sale price of our common stock on the OTCQB Venture Market was \$2.98 per share.

Investing in our common stock involves a high degree of risk. You should carefully read and consider the risk factors described in, and incorporated by reference under, "Risk Factors" beginning on page 5 of this prospectus and in the applicable prospectus supplement before investing in any securities.

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

The date of this prospectus is _____, 2022.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the United States Securities and Exchange Commission (the "SEC"). Under this registration statement, the selling stockholders may sell, at any time and from time to time, in one or more offerings, up to 5,017,008 shares of common stock. When the selling stockholders elect to make an offer of any common stock described in this prospectus, pursuant to this registration statement, a prospectus supplement, if required, may be distributed that will contain specific information about the terms of that offering. Any required prospectus supplement may also add, update or change information contained in this prospectus.

You should only rely on the information contained or incorporated by reference in this prospectus and any prospectus supplement. No person has been authorized to give any information or make any representations other than those contained or incorporated by reference in this prospectus or any accompanying prospectus supplement in connection with the offering described herein and therein, and, if given or made, such information or representations must not be relied upon as having been authorized by us or the selling stockholders.

You should read the entire prospectus and any prospectus supplement, as well as the documents incorporated by reference into this prospectus or any prospectus supplement, before making an investment decision. Neither the delivery of this prospectus or any prospectus supplement nor any sale made hereunder shall under any circumstances imply that the information contained or incorporated by reference herein or in any prospectus supplement is correct as of any date subsequent to the date hereof or of such prospectus supplement, as applicable. You should assume that the information appearing in this prospectus, any prospectus supplement or any document incorporated by reference is accurate only as of the date of the applicable documents, regardless of the time of delivery of this prospectus or any sale of securities. Our business, financial condition, results of operations and prospects may have changed since that date.

This prospectus may be supplemented from time to time by one or more prospectus supplements. Any such prospectus supplements may include additional or different information, such as additional or different risk factors or other special considerations applicable to us or our business, financial condition or results of operations. If there is any inconsistency between the information in this prospectus and any prospectus supplement, you should rely on the information contained in the prospectus supplement.

A prospectus supplement may add to, update or change the information contained in this prospectus. You should read both this prospectus and any applicable prospectus supplement together with additional information described below under the heading "Where You Can Find Additional Information."

This prospectus is neither an offer to sell nor a solicitation of an offer to buy any securities other than those registered by this prospectus, nor it is an offer to sell or a solicitation of an offer to buy securities where an offer or solicitation would be unlawful.

Unless the context otherwise requires, references in this prospectus to "we," "us," "our," the "Registrant", the "Company," refer to Global Clean Energy Holdings, Inc. and its subsidiaries. All references to "GCEH" refer only to Global Clean Energy Holdings, Inc., the entity that is issuing its common stock in this offering.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, each prospectus supplement and the information incorporated by reference in this prospectus and each prospectus supplement contain certain forward-looking statements. These statements relate to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results to be materially different from any future results expressed or implied by the forward-looking statements. The words “believe,” “may,” “will,” “potentially,” “estimate,” “continue,” “anticipate,” “intend,” “could,” “would,” “project,” “plan,” “expect” and the negative and plural forms of these words and similar expressions are intended to identify forward-looking statements but are not the exclusive means of identifying such statements. Those statements appear in this prospectus, any accompanying prospectus supplement and the documents incorporated herein and therein by reference, particularly in the sections titled “Prospectus Summary” and “Risk Factors,” and include statements regarding the intent, belief or current expectations of the Company and management that are subject to known and unknown risks, uncertainties and assumptions.

This prospectus, any prospectus supplement and the information incorporated by reference in this prospectus and any prospectus supplement also contain statements that are based on the current expectations of our Company and management. You are cautioned that any such forward-looking statements are not guarantees of future performance and involve risks and uncertainties, and that actual results may differ materially from those projected in the forward- looking statements as a result of various factors.

Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely upon forward-looking statements as predictions of future events. The events and circumstances reflected in the forward- looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Except as required by applicable law, including the securities laws of the United States and the rules and regulations of the SEC, we do not plan to publicly update or revise any forward-looking statements contained herein after we distribute this prospectus, whether as a result of any new information, future events or otherwise.

PROSPECTUS SUMMARY

This summary description about us and our business highlights selected information contained elsewhere in this prospectus or incorporated in this prospectus by reference. This summary does not contain all of the information you should consider before investing in our common stock. You should carefully read this entire prospectus and any applicable prospectus supplement, including each of the documents incorporated herein or therein by reference, before making an investment decision.

Overview

GCEH is a uniquely positioned, vertically integrated renewable feedstocks and finished fuels company. Our business model is designed to control all aspects of the value chain, with one end of our business anchored in plant science and the other in renewable fuels production. We contract directly with farmers to grow our ultra-low carbon, nonfood, proprietary Camelina crop on fallow land to process at our 15,000 barrels per day (“BPD”) renewable fuels refinery in Bakersfield, California (the “Bakersfield Renewable Fuels Refinery”), which is expected to be online in the second half of 2022. Once production begins at the Bakersfield Renewable Fuels Refinery, we expect to sell all our production of renewable diesel for a minimum of five years to ExxonMobil Oil Corporation through a pair of long-term supply agreements.

Our focus is to be one economically viable solution in reducing global greenhouse gas (“GHG”) emissions via sustainable, more environmentally friendly alternatives to conventional petroleum-based fuels. The three pillars of sustainability — environmental, social, and economic — anchor our business philosophy. Through the implementation of these principals across our vertically integrated asset platform, we seek to drive long-term stakeholder value while creating a positive impact on food security by easing the demand on food crops for fuel production. By creating additive feedstock volume into an undersupplied market, our platform positions us as a globally scalable solution to the “Food vs. Fuel” quandary, while allowing us to continuously lower the carbon intensity of our finished fuels. We believe we can achieve “net zero” GHG footprint on all our finished fuels, including renewable diesel, renewable propane, renewable naphtha, and in the future, sustainable aviation fuel (“SAF”). By eliminating inefficiencies throughout the value chain and leveraging a vertically integrated model, we expect to maintain significant control of the full value chain which allows us to produce highly sustainable, low cost, high margin and ultra-low carbon finished fuels.

Over the past 15 years we have developed a portfolio of proprietary elite varieties of Camelina sativa (“Camelina”) to be used as a feedstock for our Bakersfield Renewable Fuels Refinery, providing us with feedstock certainty unmatched in the industry. Our Camelina holds several advantages over traditional feedstocks, such as soybean oil, yielding additional Low Carbon Fuel Standard credits through a lower carbon intensity score, adding significant value to our end products. As a dryland farmed rotational crop grown on fallow land, Camelina does not impact food production or compete with other crops for scarce water resources. The crop land available for potential Camelina production in the Great Plains and Pacific northwest totals approximately 19 million acres. The result of our vertically integrated farm-to-fuel strategy is a highly sustainable, low cost, and ultra-low carbon finished fuel.

Utilizing a vertically-integrated farm-to-fuels strategy meaningfully differentiates our platform from our competition. Our strategy is to control all aspects of the renewable fuels value chain: (i) our upstream operations, anchored in plant and soil science, develop and produce a patented, low cost, proprietary, nonfood-based crop for use in our downstream operations; (ii) our midstream operations efficiently handle, aggregate, store, and transport feedstock to our downstream operations; and (iii) our downstream operations process and convert feedstock into drop-in renewable fuels at our Bakersfield Renewable Fuels Refinery. By eliminating inefficiencies throughout the value chains and leveraging a vertically integrated model, we have unparalleled control throughout the value chain to maximize margin generation through operational and logistical efficiencies while simultaneously minimizing feedstock costs and our GHG footprint.

Corporate Information

GCEH is incorporated in the State of Delaware. GCEH’s principal executive offices are located at 2790 Skypark Drive, Suite 105, Torrance, California 90505, and its telephone number at that address is (310) 641-GCEH (4234). GCEH maintains a website at: www.gceholdings.com. Information contained on, or accessible through, our website is not a part of, and are not incorporated by reference into, this prospectus.

The Offering

- The selling stockholders named in this prospectus may offer and sell up to 5,017,008 shares of our common stock, par value \$0.001 per share, issuable upon the exercise of certain common stock purchase warrants held by the selling stockholders (the “Warrants”). The selling stockholders will determine when and how they will sell the common stock offered in this prospectus, as described in “Plan of Distribution.”
- Our common stock is currently traded on the OTCQB Venture Market under the symbol “GCEH.”
- We will not receive any of the proceeds of sales by the selling stockholders of any of the common stock covered by this prospectus. We will, however, receive the exercise price paid upon the exercise of the Warrants.
- See “Risk Factors” beginning on page 5, for a discussion of factors you should carefully consider before deciding to invest in our common stock.

When we refer to the selling stockholders in this prospectus, we are referring to the holders of registration rights under the Registration Rights Agreement, dated as of February 23, 2022, by and among the Company and the selling stockholders (the “Registration Rights Agreement”), and, as applicable, their permitted transferees or other successors-in-interest that may be identified in a supplement to this prospectus or, if required, a post-effective amendment to the registration statement of which this prospectus is a part. See “Selling Stockholders” beginning on page 9 of this prospectus.

RISK FACTORS

Investing in our common stock involves risks. Before deciding to invest in our common stock, please read carefully the risks and uncertainties described below and incorporated by reference in this prospectus or any prospectus supplement. These risks and uncertainties include those discussed in our Annual Report on Form 10-K for the year ended December 31, 2021 filed with the SEC on April 4, 2022 and our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2022 filed with the SEC on May 16, 2022, which are incorporated herein by reference and may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future and any prospectus supplement related to a particular offering. See “Information Incorporation by Reference” and “Where You Can Find More Information.” These risks are not the only risks that we may face. Additional risks and uncertainties that we are unaware of, or that we currently deem immaterial, may also become important factors that affect us. If any of the risks or uncertainties described in this prospectus or our SEC filings or any such additional risks and uncertainties actually occur, our business, financial condition or results of operations could be materially and adversely affected which could cause our actual operating results to differ materially from those indicated or suggested by forward-looking statements made in this prospectus or our SEC filings or presented elsewhere by management from time to time. In that case, the trading price of our common stock could decline and you could lose all or part of your investment. See “Cautionary Statement Regarding Forward-Looking Statements” on page 2.

Risks Related to this Offering

The selling stockholders named in this prospectus have the right to acquire a significant number of shares of common stock upon the exercise of the Warrants, and any sale of such shares into the market in the future could cause the market price of our common stock to drop significantly.

The selling stockholders named in this prospectus may offer and sell up to 5,017,008 shares of our common stock upon the exercise of the Warrants. Sales of a substantial number of shares of our common stock in the public market by the selling stockholders named in this prospectus, or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. We are unable to predict the effect that sales by the selling stockholders may have on the prevailing market price of our common stock.

USE OF PROCEEDS

We are registering these shares of our common stock pursuant to registration rights granted to the selling stockholders in the Registration Rights Agreement. We are not selling any securities under this prospectus, and we will not receive any of the proceeds from the sale or other disposition by the selling stockholders or their transferees of the shares of common stock covered hereby.

We have agreed to pay all costs, expenses and fees relating to registering the shares of our common stock referenced in this prospectus. The selling stockholders will pay any brokerage commissions and/or similar charges incurred in connection with the sale or other disposition by them of the shares covered hereby.

We may, however, receive cash proceeds equal to the exercise price of the Warrants that a selling stockholder may exercise, to the extent any such Warrants are exercised for cash. The Warrants may be exercised for cash or by means of cashless exercise. If all of the Warrants are exercised for cash, then we will receive gross proceeds of approximately \$11,288,000. We expect to use any proceeds received by us from the cash exercise of these Warrants for general corporate purposes.

We cannot predict when or if these Warrants will be exercised, and it is possible that these Warrants may expire and never be exercised. The Warrants are exercisable under certain circumstances on a cashless basis, and if the Warrants are exercised on a cashless basis we will not receive any proceeds from the exercise of the Warrants. As a result, we may never receive meaningful, or any, cash proceeds from the exercise of these Warrants, and we cannot plan on any specific uses of any proceeds we may receive beyond the purposes described herein.

See “Selling Stockholders” and “Plan of Distribution” described below.

DESCRIPTION OF CAPITAL STOCK

The following description of our common stock and preferred stock is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to our Certificate of Incorporation (the “Certificate of Incorporation”), as amended by our Certificate of Amendment, the Certificate of Designations of Series C Preferred Stock, and our Bylaws (the “Bylaws”), each of which is filed as an exhibit to our registration statement, of which this prospectus forms a part. We encourage you to read the Certificate of Incorporation, Certificate of Designations of Series C Preferred Stock, and the Bylaws, as well as the applicable provisions of the Delaware General Corporation Law (the “DGCL”), for additional information.

General

Our authorized capital stock consists of 500,000,000 shares of common stock and 50,000,000 shares of preferred stock, par value \$0.001 per share (the “preferred stock”). As of May 27, 2022, 42,323,933 shares of our common stock were issued and outstanding. The shares of Series C Preferred Stock were created on February 23, 2022. As of May 27, 2022, a total of 145,000 shares of Series C Preferred Stock were issued and outstanding.

Common Stock

Voting Rights

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. An election of directors by our stockholders will be determined by a plurality of the votes cast by the stockholders entitled to vote on the election.

Dividend Rights

Holders of common stock are entitled to receive proportionately any dividends that may be declared by our Board of Directors (the “Board”), subject to any preferential dividend rights of any series of preferred stock that may be outstanding.

Liquidation Rights

In the event of our liquidation or dissolution, the holders of common stock are entitled to receive proportionately our net assets available for distribution to stockholders after the payment of all debts and other liabilities and subject to the preferential rights of any outstanding preferred stock.

Absence of Other Rights

Holders of common stock have no preemptive, subscription, redemption, or conversion rights. The rights, preferences, and privileges of holders of common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of preferred stock that we may designate and issue.

Trading Symbol and Transfer Agent

Our common stock is traded on the OTCQB Venture Market under the symbol “GCEH.” The transfer agent and registrar for our common stock is Colonial Stock Transfer Co, Inc. The address of our transfer agent and registrar is 7840 S. 700 E. Sandy, Utah 84070, and its telephone number is (801) 355-5740.

Preferred Stock

Under our Certificate of Incorporation, our Board has the authority, without further action by stockholders, to designate one or more series of preferred stock and to fix the voting powers, designations, preferences, limitations, restrictions, and relative rights granted to or imposed upon the preferred stock, including dividend rights, conversion rights, voting rights, rights and terms of redemption, liquidation preference, and sinking fund terms, any or all of which may be preferential to or greater than the rights of the common stock.

The authority possessed by our Board to issue preferred stock could potentially be used to discourage attempts by third parties to obtain control of our company through a merger, tender offer, proxy contest, or otherwise by making such attempts more difficult or more costly. Our Board may issue preferred stock with voting rights, conversion rights, and other rights that, if exercised, could adversely affect the voting power of the holders of common stock.

Series C Preferred Stock

On February 23, 2022, we filed a Certificate of Designations of Series C Preferred Stock (the "Certificate of Designations") with the Delaware Secretary of State pursuant to which we authorized the issuance of 145,000 shares of Series C Preferred Stock ("Series C Preferred"). The shares of Series C Preferred Stock have a stated value of \$1,000 per share for the purpose of calculating amounts payable upon liquidation, dissolution or winding up. ExxonMobil Renewables LLC ("ExxonMobil"), a subsidiary of ExxonMobil Oil Corporation, purchased, and currently owns a majority of the issued and outstanding shares of Series C Preferred. The holders of the Series C Preferred Stock have the rights, preferences and privileges described in the following paragraphs.

Under the Certificate of Designations, the holders of the Series C Preferred are entitled to receive dividends at a rate of 15%, compounded quarterly; provided, however, until March 31, 2024 we may elect not to pay some or all of the accrued dividends in cash, in which case the unpaid dividends shall accrue and be added to the original issuance price of the shares of Series C Preferred.

The shares of Series C Preferred are not convertible into shares of our common stock.

Except as otherwise required by law or with respect to certain protective provisions included in the Certificate of Designations, the holders of Series C Preferred shall have no right to vote on matters submitted to a vote of our stockholders. Notwithstanding the foregoing, so long as any shares of Series C Preferred are outstanding, without the prior written consent of ExxonMobil we may not take certain actions, including the following: (i) amend our Certificate of Incorporation, our bylaws, the Certificate of Designations or the governing documents of our principal subsidiaries in a manner that would be adverse to any holder of such shares in any material respect; (ii) commence any proceeding or action under applicable bankruptcy law, (iii) enter into a change of control transaction, (iv) authorize or issue other securities or securities convertible into or exercisable for any equity security, in each case if such security is on parity with or senior to, the shares of the Series C Preferred, or increase the authorized number of shares of any such equity securities; (v) permit the Company or any of its subsidiaries to incur additional indebtedness in excess of \$15,000,000 other than indebtedness contemplated by our annual budget, (vi) declare any dividend on any securities that are on parity with, or junior to the Series C Preferred, (vii) increase the size of the Board, (viii) hire or terminate our Chief Executive Officer, Chief Financial Officer, or Executive Vice President, or materially change the authority or responsibilities of such officers, (ix) enter into certain related party transactions, or (x) adopt an annual operating budget, make material changes to that approved annual budget, or sell or pledge assets other than as provided in the approved annual budget. In addition, for so long as ExxonMobil holds any shares of Series C Preferred, ExxonMobil shall have the right, exercisable at its option, to appoint two directors to the Board and, if the Series C Preferred shares have not been redeemed prior to the fifth anniversary of issuance, or upon an event of default under the Certificate of Designations, ExxonMobil will have the right to appoint a majority of the Board.

Upon the liquidation of the Company, available cash proceeds will first be distributable to the holders of the Series C Preferred until they have received an amount equal to the Corporation Redemption Price. The "Corporation Redemption Price" is an amount of cash that would have to be distributed so that the aggregate of all cash distributions paid to the holders of Series C Preferred since the date of issuance equals the greater of (i) the original issuance price, as adjusted, and (ii) (x) until the second anniversary of its issuance, an amount equal to 1.85 times the initial purchase price, as adjusted, and (y) from and after the second anniversary of its issuance, an amount equal to two times the initial purchase price, as adjusted.

The Certificate of Designations provides that we will have the right, at any time, to redeem/repurchase the outstanding shares of Series C Preferred (in increments of no less than \$25,000,000), for an amount equal to the Corporation Redemption Price.

Warrants

On February 23, 2022, the Company issued warrants to purchase up to an aggregate of 18,547,723 shares of common stock to ExxonMobil and the selling stockholders, of which warrants to purchase 13,530,715 shares were issued to ExxonMobil, and warrants to purchase 5,017,008 shares (the Warrants) were issued to the selling stockholders. All of the foregoing warrants (including the Warrants) have a per share exercise price of \$2.25, a five-year term, and the right to be exercised for cash or by means of cashless exercise. The exercise price and number of shares of common stock issuable under the Warrants are subject to adjustments for stock dividends, splits, combinations and similar events.

On April 13, 2021, the Company issued common stock purchase warrants for the purchase of 19,840 shares to three accredited investors. The warrants have an exercise price of \$6.25 per share and a five-year term. The exercise price and number of shares of common stock issuable under the Warrants are subject to adjustments for stock dividends, splits, combinations and similar events.

SELLING STOCKHOLDERS

On February 23, 2022, we issued and sold in a private placement 145,000 shares of Series C Preferred Stock and common stock warrants to ExxonMobil and the selling stockholders for the purchase of an aggregate of 18,547,723 shares of common stock (the "Preferred Stock Offering"). The Warrants were part of the foregoing 18,547,723 warrants issued in the Preferred Stock Offering. The aggregate purchase price paid in the Preferred Stock Offering was \$145 million. In connection with the Preferred Stock Offering, we entered into a Registration Rights Agreement, dated February 23, 2023, with the selling stockholders pursuant to which we agreed, to file a registration statement, of which this prospectus forms a part, to register the resale of up to 5,017,008 shares of common stock issuable upon exercise of the Warrants, and to keep such registration statement effective for a period equal to the earlier of five years from the date of effectiveness of this Registration Statement and on which all shares issuable under the Warrants have been sold.

We are registering the shares in accordance with the terms of the Registration Rights Agreement to permit each of the selling stockholders identified below, or their permitted transferees or other successors-in-interest that may be identified in a supplement to this prospectus or, if required, a post-effective amendment to the registration statement of which this prospectus is a part, to sell, resell or otherwise dispose of the shares in a manner contemplated under "Plan of Distribution" in this prospectus (as may be supplemented and amended). Throughout this prospectus, when we refer to the selling stockholders in this prospectus we are referring to the holders of registration rights under the Registration Rights Agreement and, as applicable, their permitted transferees or other successors-in-interest that may be identified in a supplement to this prospectus or, if required, a post-effective amendment to the registration statement of which this prospectus is a part.

The selling stockholders may sell some, all or none of their shares. We do not know how long the selling stockholders will hold the shares before selling them, and we currently have no agreements, arrangements or understandings with the selling stockholders regarding the sale or other disposition of any of the shares. The shares covered hereby may be offered from time to time by the selling stockholders. None of the selling stockholders is a broker-dealer or an affiliate of a broker-dealer.

The following table sets forth the name of each selling stockholder, the number and percentage of common stock beneficially owned by the selling stockholders as of May 27, 2022 (without regard to any limitations upon the exercise of the Warrants owned by such selling stockholder), the number of shares that may be offered under this prospectus, and the number and percentage of our common stock beneficially owned by the selling stockholders assuming all of the shares covered hereby are sold. Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to our common stock.

All information contained in the table below and the footnotes thereto is based upon information provided to us by the selling stockholders for use in this prospectus. Percentage ownership is based on 42,323,933 shares of common stock outstanding as of May 27, 2022. Unless otherwise indicated in the footnotes to this table, we believe that each of the selling stockholders named in this table has sole voting power with respect to the shares of common stock indicated as beneficially owned.

Name of Selling Stockholder(1)	Beneficial Ownership Prior to the Offering		Number of Shares Being Registered Hereby(4)	Shares Beneficially Owned After Offering	
	Number of Shares Beneficially Owned Prior to the Offering(2)	Percentage of Outstanding Common Stock(3)		Number of Shares Beneficially Owned After the Offering(2)	Percentage of Outstanding Common Stock(3)
Orion Energy Credit Opportunities Fund II, L.P.(5)	235,236	*	235,236	—	*
Orion Energy Credit Opportunities Fund II PV, L.P.(5)	378,012	*	378,012	—	*
Orion Energy Credit Opportunities Fund II GPFA, L.P.(5)	23,175	*	23,175	—	*
Orion Energy Credit Opportunities GCE Co-Invest, L.P.(5)	1,597,829	3.6%	1,597,829	—	*
Orion Energy Credit Opportunities GCE Co-Invest B, L.P.(5)	54,164	*	54,164	—	*
Orion Energy Credit Opportunities Fund III PV, L.P.(6)	192,978	*	192,978	—	*
Orion Energy Credit Opportunities Fund III GPFA, L.P.(6)	14,632	*	14,632	—	*
Orion Energy Credit Opportunities Fund III, L.P.(6)	420,885	*	420,885	—	*
Orion Energy Credit Opportunities Fund III GPFA PV, L.P. (6)	7,928	*	7,928	—	*
LIF AIV 1, L.P.(7)	1,084,319	2.5%	1,084,319	—	*
Voya Renewable Energy Infrastructure Originator I LLC(8)	384,999	*	384,999	—	*
Voya Renewable Energy Infrastructure Originator L.P.(8)	622,851	1.5%	622,851	—	*
Total	5,017,008	10.6%	5,017,008	—	*

(*) Indicates beneficial ownership of less than 1%.

- (1) Information concerning named selling stockholders or future transferees, pledgees, assignees, distributees, donees or successors of or from any such stockholder or others who later hold any selling stockholder's interests will be set forth in supplements to this prospectus, absent circumstances indicating that the change is material. In addition, post-effective amendments to the registration statement of which this prospectus forms a part will be filed to disclose any material changes to the plan of distribution from the description in the final prospectus.
- (2) Beneficial ownership is determined in accordance with the rules and regulations of the SEC. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, securities that are currently convertible or exercisable into shares of our common stock, or convertible or exercisable into shares of our common stock within 60 days of May , 2022 are deemed outstanding. Such shares, however, are not deemed outstanding for the purposes of computing the percentage ownership of any other person.
- (3) Pursuant to that certain Omnibus Amendment entered into between the Company and the selling stockholders, unless all selling stockholders (together with any other "attribution parties") file any SEC reports required as a result of such selling stockholder and such other "attribution parties" collectively beneficially owning in the aggregate in excess of 4.99% of the number of shares of common stock, the Warrants shall not be exercisable by any selling stockholder if such selling stockholder together with any other "attribution parties" collectively would beneficially own in the aggregate in excess of 4.99% (the "Maximum Percentage") of the number of shares of common stock outstanding immediately after giving effect to such exercise. At any time, upon written notice to the Company, the selling stockholders may increase or decrease the Maximum Percentage to any other percentage; provided that any increase to the Maximum Percentage shall not be effective until the sixty-first (61st) day after such written notice is delivered to the Company. The percentages in this column reflect the percentage owned by each selling stockholder individually as if the Maximum Percentage has not been reached.

- (4) Assumes the sale of all shares of common stock being offered pursuant to this prospectus.
- (5) Orion Energy Credit Opportunities Fund II GP, L.P. is the general partner of the named selling stockholder. Orion Energy Credit Opportunities Fund II Holdings, LLC is the General Partner of Orion Energy Credit Opportunities Fund II GP, L.P. Nazar Massouh and Gerrit Nicholas are the Chief Executive Officer and Chief Investment Officer, respectively, of Orion Energy Credit Opportunities Fund II Holdings, LLC, each of whom disclaims beneficial ownership of the shares of common stock issuable to the named selling stockholder.
- (6) Orion Energy Credit Opportunities Fund III GP, L.P. is the general partner of the named selling stockholder. Orion Energy Credit Opportunities Fund III Holdings, LLC is the General Partner of Orion Energy Credit Opportunities Fund III GP, L.P. Nazar Massouh and Gerrit Nicholas are the Chief Executive Officer and Chief Investment Officer, respectively, of Orion Energy Credit Opportunities Fund III Holdings, LLC, each of whom disclaims beneficial ownership of the shares of common stock issuable to the named selling stockholder.
- (7) GCM Investments GP, LLC is the general partner of LIF AIV 1, L.P. The sole member of GCM Investments GP, LLC is Grosvenor Capital Management Holdings, LLLP. The general partner of Grosvenor Capital Management Holdings, LLLP is GCM Grosvenor Holdings, LLC, which is wholly owned by GCM Grosvenor Inc., a Delaware corporation whose Class A common stock is publicly traded on the Nasdaq Stock Market (Nasdaq: GCMG). Michael J. Sacks is the Board Chairman and Chief Executive Officer of GCMG. Mr. Sacks disclaims beneficial ownership of the shares of common stock issuable to LIF AIV 1, L.P.
- (8) Voya Alternative Asset Management LLC is the agent of the named selling stockholder. Thomas Emmons and Edward Levin are both Senior Vice Presidents of Voya Alternative Asset Management LLC, each of whom disclaims beneficial ownership of the shares of common stock issuable to the named selling stockholder.

Relationship with the Selling Stockholders

Other than as discussed below, no selling stockholders have had any position, office, or other material relationship with us or any of our affiliates within the past three years. Based on representations made to us by the selling stockholders, except as noted below, no selling stockholder is a registered broker-dealer or an affiliate of a registered broker-dealer.

The selling stockholders purchased 20,000 shares of our Series C Preferred Stock in the Preferred Stock Offering for \$20,000,000.

The selling stockholders have lent us \$337.6 million in a senior secured loan which loan is currently outstanding. On May 4, 2020, through our newly formed special purpose subsidiaries, we entered into a senior credit agreement with a group of lenders pursuant to which the lenders agreed to provide us with a \$300 million senior secured term loan facility. The credit agreement has been amended eight times (as amended, the "Senior Credit Facility"), pursuant to which, among other things, the total amount available to us under that credit agreement was increased from \$300 million to \$337.6 million. The selling stockholders in this prospectus currently constitute all of the senior lenders under the Senior Credit Facility. Orion Energy Partners TP Agent, LLC acts as the administrative agent for the senior lenders in their capacity as lenders under the Senior Credit Facility. As of March 31, 2022, the entire \$337.6 million amount available under the Senior Credit Facility was utilized and borrowed by us. As of May 27, 2022, we have paid or accrued to the selling stockholders (in their capacities as lenders) an aggregate of \$50.7 million in interest and \$0.4 million in other fees.

The Senior Credit Facility is secured by all of the assets of our Bakersfield Renewable Fuels Refinery and by all of the ownership interests of our subsidiaries that own the Bakersfield Renewable Fuels Refinery. The Senior Credit Facility matures on November 4, 2026, and bears interest at the rate of 12.5% per annum. As additional consideration for the Senior Credit Facility, BKRF HCB LLC, one of our subsidiaries that is a party to the Senior Credit Facility, issued its Class B Unit membership interests to the senior lenders. The Class B Units will provide the senior lenders with certain cash distributions in addition to the principal and interest payments required under the Senior Credit Facility. Until the later of (i) five years from the commercial operations date of the Bakersfield Renewable Fuels Refinery and (ii) the date the senior lenders have received two times the loan amount under the Senior Credit Facility (the "Termination Date"), the senior lenders, as holders of the Class B Units, are entitled to receive quarterly distributions of 25% of the free cash flow until the senior lenders have received (collectively, from these cash distributions plus all principal and interest on the senior loan) an amount equal to a 2X multiple of invested capital (two times the amount of the senior loan), for a total of up to \$675.2 million, and, if the Termination Date has not occurred, thereafter quarterly distributions of 5% of the free cash flow until the Termination Date.

Concurrently with entering into the Senior Credit Facility, through our special purpose subsidiaries, on May 4, 2020 we also entered into a mezzanine credit facility (“Mezzanine Credit Facility”) with a group of mezzanine lenders pursuant to which we had the right to borrow up to \$60 million. As of February 23, 2022, the selling stockholders also were all of the mezzanine lenders. Between May 4, 2020 and February 23, 2022, the Mezzanine Credit Facility was amended to increase the maximum amount available under the Mezzanine Credit Facility from \$60 million to \$67.4 million. We did not utilize the Mezzanine Credit Facility prior to February 23, 2022, no mezzanine loans were ever advanced to us under that facility, and we made no payments to the selling stockholders/mezzanine lenders under the Mezzanine Credit Facility. On February 23, 2022, the selling stockholders/mezzanine lenders assigned all of the rights and obligations under the Mezzanine Credit Facility to GCEH, and GCEH assumed the obligations of the mezzanine lenders. As a result, since February 23, 2022 the selling stockholders no longer maintain any relationship with us under the Mezzanine Credit Facility. On February 23, 2022, GCEH fully funded the \$67.4 million mezzanine loan and became a lender to the subsidiaries.

LIF AIV 1, L.P. is an affiliate of GRV Securities LLC, a registered broker-dealer. Voya Alternative Asset Management LLC, agent for Voya Renewable Energy Infrastructure Originator I LLC and Voya Renewable Energy Infrastructure Originator L.P., is an affiliate of Voya Investments Distributor, LLC, a registered broker dealer.

PLAN OF DISTRIBUTION

We are registering the shares of common stock issuable upon exercise of the Warrants to permit the resale of these shares of common stock by the holders thereof, from time to time after the date of this prospectus. We will receive proceeds from the cash exercise of any Warrants. We will not receive any of the proceeds from the sale by the selling stockholders of the shares of common stock. We will bear all fees and expenses incident to our obligation to register the shares of common stock.

The selling stockholders may sell all or a portion of the shares of common stock held by them and offered hereby from time to time in one or more transactions directly or through one or more underwriters, broker-dealers or agents. If the shares of common stock are sold through underwriters or broker-dealers, the selling stockholders will be responsible for underwriting discounts or commissions or agent’s commissions. The shares of common stock may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions, pursuant to one or more of the following methods:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- through the writing or settlement of options, whether such options are listed on an options exchange or otherwise;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales after the date the Registration Statement is declared effective by the SEC;

- in transactions through broker-dealers that agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell shares of common stock under Rule 144 promulgated under the Securities Act, as amended (the "Securities Act"), if available, rather than under this prospectus. In addition, the selling stockholders may transfer the shares of common stock by other means not described in this prospectus. If the selling stockholders effect such transactions by selling shares of common stock to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling stockholders or commissions from purchasers of the shares of common stock for whom they may act as agent or to whom they may sell as principal (which discounts, concessions or commissions as to particular underwriters, broker-dealers or agents may be in excess of those customary in the types of transactions involved). In connection with sales of the shares of common stock or otherwise, the selling stockholders may enter into hedging transactions with broker-dealers, which may in turn engage in short sales of the shares of common stock in the course of hedging in positions they assume. The selling stockholders may also sell shares of common stock short and deliver shares of common stock, as applicable, covered by this prospectus to close out short positions and to return borrowed shares in connection with such short sales. The selling stockholders may also loan or pledge shares of common stock to broker-dealers that in turn may sell such shares.

The selling stockholders may pledge or grant a security interest in some or all of the preferred stock, preferred warrants, or shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending, if necessary, the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer or donate the shares of common stock in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be included in the term "selling stockholders" for purposes of this prospectus.

To the extent required by the Securities Act and the rules and regulations thereunder, the selling stockholders and any broker-dealer participating in the distribution of the shares of common stock may be deemed to be "underwriters" within the meaning of the Securities Act, and any commission paid, or any discounts or concessions allowed to, any such broker-dealer may be deemed to be underwriting commissions or discounts under the Securities Act. At the time a particular offering of the shares of common stock is made, a prospectus supplement, if required, will be distributed, which will set forth the aggregate amount of shares of common stock being offered and the terms of the offering, including the name or names of any broker-dealers or agents, any discounts, commissions and other terms constituting compensation from the selling stockholders and any discounts, commissions or concessions allowed or re-allowed or paid to broker-dealers. Selling stockholders who are "underwriters" within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

Under the securities laws of some states, the shares of common stock may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of common stock may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that any selling stockholder will sell any or all of the shares of common stock registered pursuant to the registration statement, of which this prospectus forms a part.

The selling stockholders and any other person participating in such distribution will be subject to applicable provisions of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules and regulations thereunder, including, without limitation, to the extent applicable, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the shares of preferred stock or common stock by the selling stockholders and any other participating person. To the extent applicable, Regulation M may also restrict the ability of any person engaged in the distribution of the shares of common stock to engage in market-making activities with respect to the shares of common stock. All of the foregoing may affect the marketability of the shares of common stock and the ability of any person or entity to engage in market-making activities with respect to the shares of common stock.

We will pay all expenses of the registration of the shares of common stock, including, without limitation, SEC filing fees, fees and expenses of our legal counsel and accountants in connection with the registration, fees and expenses incurred in connection with listing the shares of common stock, and expenses of compliance with state securities or “blue sky” laws; provided, however, a selling stockholder will pay all underwriting discounts and selling commissions, if any. We will indemnify the selling stockholders against liabilities, including some liabilities under the Securities Act in accordance with the Registration Rights Agreement or the selling stockholders will be entitled to contribution. We may be indemnified by the selling stockholders against civil liabilities, including liabilities under the Securities Act that may arise from any written information furnished to us by the selling stockholder specifically for use in this prospectus, in accordance with the related registration rights agreements or we may be entitled to contribution.

Once sold under the registration statement, of which this prospectus forms a part, the shares of common stock will be freely tradable in the hands of persons other than our affiliates.

LEGAL MATTERS

The validity of the common stock offered by this prospectus will be passed upon by TroyGould PC, Los Angeles, California. As of May 31, 2022 TroyGould PC owned an option to acquire 20,000 shares of common stock and Istvan Benko, Of Counsel to TroyGould PC, owned 10,000 shares and an option to acquire 45,000 shares of common stock.

EXPERTS

The audited financial statements as of and for the year ended December 31, 2021, incorporated by reference in this prospectus and elsewhere in the registration statement have been so incorporated by reference in reliance upon the report of Grant Thornton LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

Macias Gini & O’Connell LLP, independent registered public accounting firm, has audited the consolidated balance sheet of the Company as of December 31, 2020, the related consolidated statements of operations, changes in stockholders’ deficit, and cash flows for the year ended December 31, 2020, and the related notes in our Annual Report on Form 10-K for the year ended December 31, 2021, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Such financial statements are incorporated by reference in reliance on Macias Gini & O’Connell LLP’s reports, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and other reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K, including any amendments to those reports, and other information that we file with or furnish to the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act can also be accessed free of charge through the Internet. These filings will be available as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC.

We have filed with the SEC a registration statement under the Securities Act relating to the offering of these securities. The registration statement, including the attached exhibits, contains additional relevant information about us and the securities. This prospectus does not contain all of the information set forth in the registration statement. You can obtain a copy of the registration statement, at prescribed rates, from the SEC at the address listed above. The registration statement and the documents referred to below under "Information Incorporated by Reference" are also available on our website, www.gceholdings.com. We have not incorporated by reference into this prospectus the information on, or that can be accessed through, our website, and it is not a part of this prospectus.

INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus certain information we file with it, which means that we can disclose important information by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus, and information that we file later with the SEC will automatically update and supersede information contained in this prospectus and any accompanying prospectus supplement. We incorporate by reference the documents listed below that we have previously filed with the SEC (excluding any portions of any Form 8-K that are not deemed "filed" pursuant to the General Instructions of Form 8-K):

- [Our Annual Report on Form 10-K for the fiscal year ended December 31, 2021 that was filed with the SEC on April 4, 2022](#) including the information specifically incorporated by reference into the Annual Report on Form 10-K from [our definitive proxy statement on Schedule 14A, filed on April 29, 2022](#);
- [Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2022, that was filed with the SEC on May 16, 2022](#).
- Our Current Reports on Form 8-K filed with the SEC on [January 3, 2022](#), [January 6, 2022](#), [February 8, 2022](#), [February 28, 2022](#), [March 22, 2022](#), [April 29, 2022](#), and [May 2, 2022](#); and
- The description of our common stock contained in [Exhibit 4.2 of our Annual Report](#) on Form 10-K for the year ended December 31, 2021 that was filed with the SEC on April 4, 2022.

We also incorporate by reference into this prospectus additional documents that we may file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the completion or termination of the offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information deemed furnished and not filed with the SEC. Any statements contained in a previously filed document incorporated by reference into this prospectus is deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, or in a subsequently filed document also incorporated by reference herein, modifies or supersedes that statement.

This prospectus may contain information that updates, modifies or is contrary to information in one or more of the documents incorporated by reference in this prospectus. You should rely only on the information incorporated by reference or provided in this prospectus. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus is accurate as of any date other than the date of this prospectus or the date of the documents incorporated by reference in this prospectus.

We will provide to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request, at no cost to the requester, a copy of any and all of the information that is incorporated by reference in this prospectus.

Requests for such documents should be directed to:

Global Clean Energy Holdings, Inc.
2790 Skypark Drive, Suite 105
California 90505
Attention: Chief Administrative Officer

You may also access certain of the documents incorporated by reference in this prospectus through our website at www.gceholdings.com. Except for the specific incorporated documents listed above, no information available on, or that can be accessed through, our website shall be deemed to be incorporated by reference into this prospectus or the registration statement of which it forms a part.



Part II

Information Not Required in the Prospectus

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth an estimate of the registrant's expenses, other than any sales commissions or discounts, in connection with the issuance and distribution of the securities being registered hereby. All amounts are estimates except the SEC registration fee.

Securities and Exchange Commission registration fee	\$	1,307
Accounting fees and expenses	\$	35,000
Legal fees and expenses	\$	50,000
Miscellaneous	\$	—
Total	\$	86,307

Item 15. Indemnification of Directors and Officers

GCEH is incorporated under the laws of the State of Delaware. Reference is made to Section 102(b)(7) of the General Corporation Law of the State of Delaware, as amended (the "DGCL"), which enables a corporation in its original certificate of incorporation or an amendment thereto to eliminate or limit the personal liability of a director for violations of the director's fiduciary duty, except (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) pursuant to Section 174 of the DGCL, which provides for liability of directors for unlawful payments of dividends or unlawful stock purchase or redemptions or (iv) for any transaction from which the director derived an improper personal benefit.

Section 145(a) of the DGCL provides, in general, that a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation), because he or she is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding, if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful.

Section 145(b) of the DGCL provides, in general, that a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor because the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification shall be made with respect to any claim, issue or matter as to which he or she shall have been adjudged to be liable to the corporation unless and only to the extent that the adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, he or she is fairly and reasonably entitled to indemnity for such expenses which the adjudicating court shall deem proper.

Section 145(g) of the DGCL provides, in general, that a corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of his or her status as such, whether or not the corporation would have the power to indemnify the person against such liability under Section 145 of the DGCL.

Our Certificate of Incorporation (as amended) provides that no director of our company shall be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to us or our stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) in respect of unlawful dividend payments or stock redemptions or repurchases or other distributions pursuant to Section 174 of the DGCL or (iv) for any transaction from which the director derived an improper personal benefit. Our charter further provides that any amendment, repeal or modification of such article unless otherwise required by law will not adversely affect any right or protection existing at the time of such repeal or modification with respect to any acts or omissions occurring before such repeal or amendment of a director serving at the time of such repeal or modification.

Our charter further provides that we shall indemnify each of our directors and executive officers, and shall have power to indemnify our other officers, employees and agents, to the fullest extent permitted by Section 145 of the DGCL as the same may be amended (except that in the case of an amendment, only to the extent that the amendment permits us to provide broader indemnification rights than the DGCL permitted us to provide prior to such the amendment) against any and all expenses, judgments, penalties, fines and amounts reasonably paid in settlement that are incurred by the director, officer or such employee or on the director's, officer's or employee's behalf in connection with any threatened, pending or completed proceeding or any claim, issue or matter therein, to which he or she is or is threatened to be made a party because he or she is or was serving as a director, officer or employee of our company, or at our request as a director, partner, trustee, officer, employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise, if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of our company and, with respect to any criminal proceeding, had no reasonable cause to believe his or her conduct was unlawful. Accordingly, GCEH may advance expenses to each of our directors and, in the discretion of the board of directors, to certain officers and employees, in advance of the final disposition of such action, suit or proceeding only upon receipt of an undertaking by such person to repay all amounts advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal that such person is not entitled to be indemnified for such expenses.

In addition, as permitted under Section 145(f) of the DGCL, the right of each of our directors and officers to indemnification and advancement of expenses shall not be exclusive of any other right now possessed or hereafter acquired under any statute, provision of the charter or bylaws, agreement, vote of stockholders or otherwise. Furthermore, our Certificate of Incorporation authorizes us to provide insurance for our directors, officers, employees and agents against any liability, whether or not we would have the power to indemnify such person against such liability under the DGCL or the Bylaws.

We have entered into, and intend to continue to enter into separate indemnification agreements with our directors and executive officers to provide these directors and executive officers additional contractual assurances regarding the scope of the indemnification set forth in our Certificate of Incorporation and bylaws and to provide additional procedural protections. The indemnification provisions in our Certificate of Incorporation, bylaws and the indemnification agreements may be sufficiently broad to permit indemnification of our directors and executive officers for liabilities arising under the Securities Act.

We maintain a liability insurance policy that covers certain liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers.

Item 16. Exhibits

Exhibit Number	Description of Document
3.1	Certificate of Incorporation (incorporated herein by reference to Appendix D to the Company's Definitive Proxy Statement on Schedule 14A filed with the Commission on June 2, 2010).
3.2	Certificate of Amendment to its Certificate of Incorporation (incorporated by reference herein to Exhibit 3.2 to the Company's Form 10-K filed on April 13, 2021)
3.3	Bylaws (incorporated herein by reference to Appendix E to the Company's Definitive Proxy Statement on Schedule 14A filed with the Commission on June 2, 2010).
4.1	Specimen stock certificate (filed as Exhibit 4.1 to the Company's Annual Report on Form 10-K filed on October 6, 2020, and incorporated herein by reference).
4.2	Form of Warrant issued to the purchasers of the Company's Series C Preferred Stock (incorporated herein by reference to Exhibit 3.2 in the Company's Current Report on Form 8-K filed on February 2, 2022).
4.3*	Omnibus Amendment by and among the Company and the selling stockholders.
4.4*	Registration Rights Agreement, dated February 23, 2022, among the Company and the selling stockholders.
5.1*	Opinion of TroyGould PC.
23.1*	Consent of Grant Thornton LLP.
23.2*	Consent of Macias Gini & O'Connell LLP.
23.3*	Consent of TroyGould PC. (included in Exhibit 5.1)
24.1	Power of Attorney (included on the signature page of this registration statement).
107*	Filing Fee Table

* Filed herewith

Item 17. Undertakings

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser:

(i) If the registrant is relying on Rule 430B,

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to the effective date; or

(ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer and sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
- (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding), is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

(d) The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement on Form S-3 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Torrance, California, on May 31, 2022.

GLOBAL CLEAN ENERGY HOLDINGS, INC.

By: /s/ RICHARD PALMER
Richard Palmer
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Richard Palmer and Ralph Goehring, and each of them acting individually, jointly and severally, as his true and lawful attorneys-in-fact and agents, with full power of each to act alone, with full powers of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to this Registration Statement on Form S-3 (including post-effective amendments), and to sign any registration statement for the same offering covered by this Registration Statement that is to be effective upon filing pursuant to Rule 462(b) promulgated under the Securities Act, and all post-effective amendments thereto, and to file the same, with all exhibits thereto and all documents in connection therewith, with the SEC, granting unto said attorneys-in-fact and agents, with full power of each to act alone, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or his or their substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933 this registration statement has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ RICHARD PALMER</u> Richard Palmer	Chief Executive Officer and Director (Principal Executive Officer) and Director	May 31, 2022
<u>/s/ RALPH GOEHRING</u> Ralph Goehring	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	May 31, 2022
<u>/s/ DAVID R. WALKER</u> David R. Walker	Chairman, the Board of Directors	May 31, 2022
<u>/s/ SUSAN L. ANHALT</u> Susan L. Anhalt	Director	May 31, 2022
<u>/s/ PHYLLIS E. CURRIE</u> Phyllis E. Currie	Director	May 31, 2022
<u>/s/ E. NICHOLAS JONES</u> E. Nicholas Jones	Director	May 31, 2022
<u>/s/ MARTIN WENZEL</u> Martin Wenzel	Director	May 31, 2022
<u>/s/ AMY K. WOOD</u> Amy K. Wood	Director	May 31, 2022

OMNIBUS AMENDMENT

This Omnibus Amendment (this “**Amendment**”) to those certain Warrants (as defined below) is entered into by and among Global Energy Clean Holdings Inc., a Delaware corporation (the “**Company**”) and each of Orion Energy Credit Opportunities Fund II, L.P., Orion Energy Credit Opportunities Fund II PV, L.P., Orion Energy Credit Opportunities Fund II GPFA, L.P., Orion Energy Credit Opportunities Fund GCE Co-Invest, L.P., Orion Energy Credit Opportunities Fund GCE Co-Invest B, L.P., Orion Energy Credit Opportunities Fund III PV, L.P., Orion Energy Credit Opportunities Fund III GPFA, L.P., Orion Energy Credit Opportunities Fund III, L.P., Orion Energy Credit Opportunities Fund III GPFA PV, L.P., LIF AIV 1, L.P., Voya Renewable Energy Infrastructure Originator I LLC and Voya Renewable Energy Infrastructure Originator L.P. (the “**Holder**s”). The Company and the Holders are each referred to herein as a “**Party**” and collectively as the “**Parties**”. Capitalized terms used but not otherwise defined have the meanings ascribed to such terms in the Warrants.

WHEREAS, the Company previously issued those certain Warrant Certificate Nos. GCEH-002, GCEH-003, GCEH-004, GCEH-006, GCEH-007, GCEH-008, GCEH-009, GCEH-010, GCEH-011, GCEH-012, GCEH-013 and GCEH-014 (the “**Warrants**”) to the applicable Holders as set forth in each applicable Warrant; and

WHEREAS, the Company and the Holders desire to amend each of the Warrants in the manner set forth herein in order to clarify the original intention of the Parties with respect to the terms of exercise of the Warrants.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the parties hereto, the Parties agree as follows:

1. Amendment to Warrants. Pursuant to Section 19 of each Warrant, each applicable Party hereby agrees that Section 3 of each Warrant is hereby amended to add a clause (j) as follows:

“(j) Notwithstanding anything to the contrary contained herein, unless all of Orion Energy Credit Opportunities Fund II, L.P., Orion Energy Credit Opportunities Fund II PV, L.P., Orion Energy Credit Opportunities Fund II GPFA, L.P., Orion Energy Credit Opportunities Fund GCE Co-Invest, L.P., Orion Energy Credit Opportunities Fund GCE Co-Invest B, L.P., Orion Energy Credit Opportunities Fund III PV, L.P., Orion Energy Credit Opportunities Fund III GPFA, L.P., Orion Energy Credit Opportunities Fund III, L.P., Orion Energy Credit Opportunities Fund III GPFA PV, L.P., LIF AIV 1, L.P., Voya Renewable Energy Infrastructure Originator I LLC and Voya Renewable Energy Infrastructure Originator L.P. (the “**Lender Holders**”), together with any other “attribution parties”, file any Securities and Exchange Commission reports required as a result of such Lender Holders and such other “attribution parties” collectively beneficially owning in the aggregate in excess of 4.99% of the number of shares of Common Stock of the Company outstanding, this Warrant shall not be exercisable by Holder if such Holder together with any other “attribution parties” collectively would beneficially own in the aggregate in excess of 4.99% (the “**Maximum Percentage**”) of the number of shares of Common Stock of the Company outstanding immediately after giving effect to such exercise. For purposes of the foregoing, beneficial ownership shall be calculated in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended. At any time, upon written notice to the Company, Holder may increase or decrease the Maximum Percentage to any other percentage; provided that any increase to the Maximum Percentage shall not be effective until the sixty-first (61st) day after such written notice is delivered to the Company.”

2 . Effectiveness of Amendment. This Amendment is being entered into and adopted to reflect the original intention of the Parties as of the Original Issue Date with respect to each Warrant and is, therefore, being made effective as of the applicable Original Issue Date of each Warrant.

3 . References to Warrants. After giving effect to this Amendment, each reference in each applicable Warrant to “this Warrant”, “hereof”, “hereunder”, “herein” or words or phrases of similar import shall refer to such Warrant as amended by this Amendment; provided, that, for the avoidance of doubt, all references in each Warrant to “the date hereof” and “the date of this Warrant” or words or phrases of similar import shall refer to the Original Issue Date of such Warrant.

4 . Entire Agreement. This Amendment, together with each Warrant constitutes the entire agreement among the Company and the applicable Holder that is the recipient of such Warrant with respect to the subject matter hereof and thereof and supersedes any prior understandings, negotiations, agreements, statements or representations among the Holders and Company or any of their respective Affiliates of any nature, whether written or oral, to the extent they relate in any way to the subject matter hereof or thereof.

5 . No Other Amendments. Except as expressly amended by this Amendment, the terms of each Warrant shall remain in full force and effect.

6 . Miscellaneous Terms. The provisions of Sections 18 (Headings), 19 (Amendment and Modification; Waiver), 20 (Severability), 21 (Governing Law), 22 (Submission to Jurisdiction), 23 (Waiver of Jury Trial), 24 (Counterparts) and 24 (No Strict Construction) of each Warrant shall apply *mutatis mutandis* to this Amendment.

[Signature page follows]

IN WITNESS WHEREOF, each Party has executed this Amendment effective as to each Warrant as of the Original Issue Date of such Warrant.

GLOBAL CLEAN ENERGY HOLDINGS, INC.

By: /s/ Richard Palmer

Name: Richard Palmer

Title: President & CEO

**ORION ENERGY CREDIT OPPORTUNITIES
FUND II, L.P.**

By: /s/ Gerrit Nicholas
Name: Gerrit Nicholas
Title: Managing Partner

**ORION ENERGY CREDIT OPPORTUNITIES
FUND II PV, L.P.**

By: /s/ Gerrit Nicholas
Name: Gerrit Nicholas
Title: Managing Partner

**ORION ENERGY CREDIT OPPORTUNITIES
FUND II GPFA, L.P.**

By: /s/ Gerrit Nicholas
Name: Gerrit Nicholas
Title: Managing Partner

**ORION ENERGY CREDIT OPPORTUNITIES
GCE CO-INVEST, L.P.**

By: /s/ Gerrit Nicholas
Name: Gerrit Nicholas
Title: Managing Partner

**ORION ENERGY CREDIT OPPORTUNITIES
GCE CO-INVEST B, L.P.**

By: /s/ Gerrit Nicholas
Name: Gerrit Nicholas
Title: Managing Partner

**ORION ENERGY CREDIT OPPORTUNITIES
FUND III, L.P.**

By: /s/ Gerrit Nicholas
Name: Gerrit Nicholas
Title: Managing Partner

**ORION ENERGY CREDIT OPPORTUNITIES
FUND III PV, L.P.**

By: /s/ Gerrit Nicholas
Name: Gerrit Nicholas
Title: Managing Partner

**ORION ENERGY CREDIT OPPORTUNITIES
FUND III GPFA, L.P.**

By: /s/ Gerrit Nicholas
Name: Gerrit Nicholas
Title: Managing Partner

**ORION ENERGY CREDIT OPPORTUNITIES
FUND III GPFA PV, L.P.**

By: /s/ Gerrit Nicholas
Name: Gerrit Nicholas
Title: Managing Partner

**VOYA RENEWABLE ENERGY
INFRASTRUCTURE ORIGINATOR I LLC**

By: Voya Alternative Asset Management LLC, as Agent

By: /s/ Edward Levin

Name: Edward Levin

Title: Senior Vice President

**VOYA RENEWABLE ENERGY
INFRASTRUCTURE ORIGINATOR L.P.**

By: Voya Alternative Asset Management LLC, as Agent

By: /s/ Edward Levin

Name: Edward Levin

Title: Senior Vice President

LIF AIV 1, L.P

By: GCM Investments GP, LLC, its General Partner

By: /s/ Todd Henigan

Name: Todd Henigan

Title: Authorized Signatory

REGISTRATION RIGHTS AGREEMENT

This REGISTRATION RIGHTS AGREEMENT (the "Agreement") is dated as of this 23rd day of February 2022, by and among Global Clean Energy Holdings, Inc. a Delaware corporation (the "Company"), and the persons identified on the signature pages hereto (collectively, the "Investors," and each individually, the "Investor").

WHEREAS, the parties to this Agreement are simultaneously entering into a certain Securities Purchase Agreement, dated as of the date hereof (the "Purchase Agreement"), whereby the Investors have agreed to purchase shares of the Company's Series C Preferred Stock (the "Purchased Securities") from the Company and receive warrants to purchase up to an aggregate of 5,017,008 shares of Common Stock of the Company, as set forth in the Purchase Agreement; and

WHEREAS, the execution of this Agreement is an inducement and a condition precedent to the purchase by the Investors of the Purchased Securities under the Purchase Agreement.

NOW, THEREFORE, in consideration of the premises, as an inducement to the Investors to consummate the transactions contemplated by the Purchase Agreement, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto covenant and agree with each other as follows:

1. Certain Definitions.

As used in this Agreement, the following terms shall have the following respective meanings:

"Commission" shall mean the United States Securities and Exchange Commission, or any other federal agency administering the Securities Act and the Exchange Act at the time.

"Common Stock" shall mean shares of the Company's common stock, par value \$0.001 per share.

"Convertible Securities" means all then outstanding options, warrants, rights, convertible notes, Preferred Stock or other securities of the Company directly or indirectly convertible into or exercisable for shares of Common Stock.

"Exchange Act" shall mean the Securities Exchange Act of 1934, as amended, or any similar successor federal statute, and the rules and regulations of the Commission thereunder, all as the same shall be in effect at the time.

"Other Investors" shall mean those Investors listed on Schedule B hereto.

"Person" shall mean an individual, a corporation, a partnership, a joint venture, a trust, an unincorporated organization, a limited liability company or partnership, a government and any agency or political subdivision thereof.

"Preferred Stock" shall mean preferred stock, par value \$0.001 per share, designated as "Series C Preferred Shares", with an initial stated value of \$1,000 per share, and having such terms as set forth in the Certificate of Designations (as defined in the Purchase Agreement).

"Principal Investors" shall mean those Investors listed on Schedule A hereto.

“**Registrable Securities**” shall mean (i) the shares of Common Stock issuable or issued upon exercise of the Warrants; and (ii) any shares of Common Stock issued as (or issuable upon the conversion or exercise of any warrant, right, or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, such shares of Common Stock (it being understood that for purposes of this Agreement, a Person will be deemed to be a holder of Registrable Securities whenever such Person has the right to then acquire or obtain from the Company any Registrable Securities, whether or not such acquisition has actually been effected); *provided, however*, that a Registrable Security shall cease to be a Registrable Security when (A) a registration statement covering such Registrable Security has become effective under the Securities Act and such Registrable Security has been disposed of pursuant to such registration statement, (B) such Registrable Security has been disposed of under Rule 144 under the Securities Act or any other exemption from the registration requirements of the Securities Act, or (C) such Registrable Security has been sold or disposed of in a transaction in which the transferor’s rights under this Agreement are not assigned to the transferee.

“**Registration Expenses**” shall mean the expenses so described in Section 6 hereof.

“**Securities Act**” shall mean the Securities Act of 1933, as amended, or any similar successor federal statute, and the rules and regulations of the Commission thereunder, all as the same shall be in effect at the time.

“**Warrants**” means warrants issued by the Company to the Investors to purchase Common Stock pursuant to the Purchase Agreement.

All other capitalized terms not defined herein shall have the meaning set forth in the Purchase Agreement unless otherwise indicated.

1. **Shelf Registration.**

The Company shall use its commercially reasonable efforts to file a registration statement with the SEC on Form S-3 or, if Form S-3 is not available for use by the Company, on Form S-1 (or any successor form or other appropriate form promulgated under the Securities Act) for an offering to be made on a continuous or delayed basis pursuant to Rule 415 promulgated under the Securities Act (a “**Shelf Registration Statement**”), as soon as practicable after the closing of the transactions contemplated by the Purchase Agreement, but in no event later than May 31, 2022, which Shelf Registration Statement shall include all or any part of the Investors’ Registrable Securities requested to be included by such Investors. The Company shall give notice to all Investors of the intended filing date of the Shelf Registration Statement, and such Investors shall have at least ten (10) Business Days to notify the Company in writing of the number of Registrable Securities such Investor desires to include in the Shelf Registration Statement. The Company shall use its reasonable best efforts (i) to promptly obtain effectiveness of the Shelf Registration Statement, (ii) to maintain the effectiveness of such registration statement (or any successor or replacement registration statement) at all times following the effective date of such registration statement until the earlier of (x) five years from the date on which the Shelf Registration Statement becomes effective; and (y) the date on which all shares of Common Stock issuable upon the exercise of the Warrants are sold, and (iii) if the Company is a WKSI at the time any replacement Shelf Registration Statement is filed, to file an automatic shelf registration statement (as defined in Rule 405 under the Securities Act) (an “**Automatic Shelf Registration Statement**”) and promptly file amendments or otherwise supplement such Automatic Shelf Registration Statement to include any additional Registrable Securities not included in the initial registration, to the extent requested in writing by the Investors from time to time while such Automatic Shelf Registration Statement is effective.

2. Demand Registration.

(a) At any time after the Shelf Registration Statement referred to in Section 1 is effective, one or more Investors may notify the Company that they intend to offer or cause to be offered in an underwritten public offering all or any portion of their Registrable Securities, provided that the aggregate proceeds expected to be received from the sale of securities requested to be included in such registration must equal or exceed \$15,000,000. Upon receipt of such request, the Company shall promptly deliver notice of such request to all Investors holding Registrable Securities who shall then have twenty (20) days to notify the Company in writing of their desire to be included in such registration. The Company shall state such in the written notice and in such event the right of any Person to participate in such registration shall be conditioned upon such Person's participation in such underwritten public offering and the inclusion of such Person's Registrable Securities in the underwritten public offering to the extent provided herein. The Company will use its reasonable best efforts to expeditiously effect the registration of all Registrable Securities whose holders request participation in such registration under the Securities Act, but only to the extent provided for in this Agreement; *provided however*, that the Company shall not be required to effect registration pursuant to a request under this Section 2 more than three times for the Investors as a group (at least one of which must be initiated by a Principal Investor). Notwithstanding anything to the contrary contained herein, no request may be made under this Section 2 within ninety (90) days after the effective date of a registration statement filed by the Company covering a firm commitment underwritten public offering in which the holders of Registrable Securities shall have been entitled to join pursuant to Section 3 and in which there shall have been effectively registered all Registrable Securities as to which registration shall have been requested. A registration will not count as a requested registration under this Section 2(a) unless and until the registration statement relating to such registration has been declared effective by the Commission *provided however*, that the participating Investors holding a majority of the Registrable Securities being registered by all participating Investors (a "Participating Majority") may request, in writing, that the Company withdraw a registration statement which has been filed under this Section 2(a) but has not yet been declared effective, and a Participating Majority may thereafter request the Company to reinstate such registration statement, if permitted under the Securities Act, or the holders of Registrable Securities may request that the Company file another registration statement, in accordance with the procedures set forth herein and without reduction in the number of demand registrations permitted under this Section 2(a).

(b) If the managing underwriter of such offering referred to in this Section 2 determines in good faith that the number of securities sought to be offered should be limited due to market conditions, then the number of securities to be included in such underwritten public offering shall be reduced to a number deemed satisfactory by such managing underwriter; *provided*, that the shares to be excluded shall be determined in the following order of priority: (i) persons not having any contractual or other right to include such securities in the registration statement, (ii) securities held by any other Persons (other than the holders of Registrable Securities) having a contractual, incidental "piggy back" right to include such securities in the registration statement, (iii) securities to be registered by the Company pursuant to such registration statement, (iv) Registrable Securities of Investors who did not make the original request for registration and, if necessary, (v) Registrable Securities of Investors who requested such registration pursuant to Section 2(a). If there is a reduction of the number of Registrable Securities pursuant to clauses (iv) or (v), such reduction shall be made on a pro rata basis (based upon the aggregate number of Registrable Securities held by such holders).

(c) With respect to a request for registration pursuant to Section 2(a), the managing underwriter shall be chosen by the holders of a majority of the Registrable Securities to be sold in such offering (which approval will not be unreasonably withheld or delayed). The Company may not cause any other registration of securities for sale for its own account (other than a registration effected solely to implement an employee benefit plan or a transaction to which Rule 145 of the Securities Act is applicable) to become effective within one hundred twenty (120) days following the effective date of any registration required pursuant to this Section 2.

3. Piggyback Registration.

If at any time the Company shall determine to (x) prepare and file with the SEC a registration statement for the sale of Common Stock or other equity securities of the Company (other than a registration statement on Form S-4 or any successor form, or a registration statement on Form S-8 or any successor form), or (y) sell shares of Common Stock or other equity securities of the Company in an underwritten offering pursuant to a registration statement filed with the SEC on Form S-3 or, if Form S-3 is not available for use by the Company, on Form S-1 (or any successor form or other appropriate form promulgated under the Securities Act) for an offering to be made on a continuous or delayed basis pursuant to Rule 415 promulgated under the Securities Act, in each case, either for its own account or for the account of other holders of equity securities in the Company (other than pursuant to Section 1 and Section 2), the Company shall (i) promptly, but no less than ten (10) Business Days prior to the anticipated filing date of the registration statement (in the case of clause (x) above) or such sale (in the case of clause (y) above), give to each Investor written notice thereof and (ii) subject to the limits contained in this Section 3, include in such registration statement or sale, as applicable, all Registrable Securities specified in a written request or requests, made by such Investors; *provided, however*, that if the Company is advised in writing in good faith by any managing underwriter of the Company's securities being offered in a public offering pursuant to such registration statement that the amount to be sold by persons other than the Company (collectively, "Selling Stockholders") is greater than the amount which can be offered without adversely affecting the offering, the Company may reduce the amount offered for the accounts of Selling Stockholders (including such holders of shares of Registrable Securities) to a number deemed satisfactory by such managing underwriter; and *provided further*, that any shares to be excluded shall be determined in the following order of priority: (i) securities held by any Persons not having any such contractual, incidental registration rights, (ii) securities held by any Persons having contractual, incidental registration rights pursuant to an agreement which is not this Agreement, and (iii) the Registrable Securities sought to be included by the holders thereof as determined on a pro rata basis (based upon the aggregate number of Registrable Securities held by such holders).

4. **Registration Procedures.** If and whenever the Company is required by the provisions of this Agreement to use its reasonable best efforts (or such other standard applicable to such provision of this Agreement) to effect the registration of any of its securities under the Securities Act, the Company will:

(a) use its reasonable best efforts to prepare and file with the Commission a registration statement on the appropriate form under the Securities Act with respect to such securities, which form shall comply as to form in all material respects with the requirements of the applicable form and include all financial statements required by the Commission to be filed therewith, and use its best efforts to cause such registration statement to become and remain effective until completion of the proposed offering;

(b) use its reasonable best efforts to prepare and file with the Commission such amendments and supplements to such registration statement and the prospectus used in connection therewith as may be necessary to keep such registration statement effective until the distribution described in such registration statement has been completed and to comply with the provisions of the Securities Act with respect to the sale or other disposition of all securities covered by such registration statement whenever the seller or sellers of such securities shall desire to sell or otherwise dispose of the same, but only to the extent provided in this Agreement;

(c) furnish to each selling holder and the underwriters, if any, such number of copies of such registration statement, any amendments thereto, any documents incorporated by reference therein, the prospectus, including a preliminary prospectus, in conformity with the requirements of the Securities Act, and such other documents as such selling holder may reasonably request in order to facilitate the public sale or other disposition of the securities owned by such selling holder;

(d) use its reasonable best efforts to register or qualify the securities covered by such registration statement under such other securities or state blue sky laws of such jurisdictions as each selling holder shall request, and do any and all other acts and things which may be necessary under such securities or blue sky laws to enable such selling holder to consummate the public sale or other disposition in such jurisdictions of the securities owned by such selling holder, except that the Company shall not for any such purpose be required to qualify to do business as a foreign corporation in any jurisdiction wherein it is not so qualified;

(e) within a reasonable time before each filing of the registration statement or prospectus or amendments or supplements thereto with the Commission, furnish to counsel selected by the holders of Registrable Securities copies of such documents proposed to be filed, which documents shall be subject to the approval of such counsel;

(f) promptly notify each selling holder of Registrable Securities, such selling holder's counsel and any underwriter and (if requested by any such Person) confirm such notice in writing, of the happening of any event which makes any statement made in the registration statement or related prospectus untrue or which requires the making of any changes in such registration statement or prospectus so that they will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein in the light of the circumstances under which they were made not misleading; and, as promptly as practicable thereafter, prepare and file with the Commission and furnish a supplement or amendment to such prospectus so that, as thereafter deliverable to the purchasers of such Registrable Securities, such prospectus will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading;

(g) use its reasonable best efforts to prevent the issuance of any order suspending the effectiveness of a registration statement, and if one is issued use its reasonable best efforts to obtain the withdrawal of any order suspending the effectiveness of a registration statement at the earliest possible moment;

(h) if requested by the managing underwriter or underwriters (if any), any selling holder, or such selling holder's counsel, promptly incorporate in a prospectus supplement or post-effective amendment such information as such Person requests to be included therein, including, without limitation, with respect to the securities being sold by such selling holder to such underwriter or underwriters, the purchase price being paid therefor by such underwriter or underwriters and with respect to any other terms of an underwritten offering of the securities to be sold in such offering, and promptly make all required filings of such prospectus supplement or post-effective amendment;

(i) upon execution of confidentiality agreements in form and substance reasonably satisfactory to the Company, make available to each selling holder, any underwriter participating in any disposition pursuant to a registration statement, and any attorney, accountant or other agent or representative retained by any such selling holder or underwriter (collectively, the "Inspectors"), all financial and other records, pertinent corporate documents and properties of the Company (collectively, the "Records"), as shall be reasonably necessary to enable them to exercise their due diligence responsibility, and cause the Company's officers, directors and employees to supply all information requested by any such Inspector in connection with such registration statement;

(j) enter into any reasonable underwriting agreement required by the proposed underwriter(s) for the selling holders, if any, and use its reasonable best efforts to facilitate the public offering of the securities;

(k) use reasonable best efforts to furnish to each prospective selling holder a signed counterpart, addressed to the prospective selling holder, of (A) an opinion of counsel for the Company, dated the effective date of the registration statement, and (B) a “comfort” letter signed by the independent public accountants who have certified the Company’s financial statements included in the registration statement, covering substantially the same matters with respect to the registration statement (and the prospectus included therein) and (in the case of the accountants’ letter) with respect to events subsequent to the date of the financial statements, as are customarily covered (at the time of such registration) in opinions of the Company’s counsel and in accountants’ letters delivered to the underwriters in underwritten public offerings of securities;

(l) cause the securities covered by such registration statement to be listed on the securities exchange or quoted on the quotation system on which the Common Stock of the Company is then listed or quoted (or if the Common Stock is not yet listed or quoted, then on such exchange or quotation system as the selling holders of Registrable Securities and the Company shall determine);

(m) otherwise use its reasonable best efforts to comply with all applicable rules and regulations of the Commission;

(n) otherwise cooperate with the underwriter(s), the Commission and other regulatory agencies and take all actions and execute and deliver or cause to be executed and delivered all documents necessary to effect the registration of any securities under this Agreement; and

(o) during the period when the prospectus is required to be delivered under the Securities Act, promptly file all documents required to be filed with the Commission pursuant to Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act.

5 . **Deemed Underwriter.** The Company agrees that, if an Investor or any of its affiliates (each an “Investor Entity”) could reasonably be deemed to be an “underwriter,” as defined in Section 2(a)(11) of the Securities Act, in connection with any registration of the Company’s securities pursuant to this Agreement, and any amendment or supplement thereof (any such registration statement or amendment or supplement a “Investor Underwriter Registration Statement”), then the Company will cooperate with such Investor Entity in allowing such Investor Entity to conduct customary “underwriter’s due diligence” with respect to the Company and satisfy its obligations in respect thereof. In addition, at such Investor’s request, the Company will furnish to such Investor, on the date of the effectiveness of any Investor Underwriter Registration Statement and thereafter from time to time on such dates as such Investor may reasonably request (i) a letter, dated such date, from the Company’s independent certified public accountants in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering, addressed to such Investor, and (ii) an opinion, dated as of such date, of counsel representing the Company for purposes of such Investor Underwriter Registration Statement, in form, scope and substance as is customarily given in an underwritten public offering, including, without limitation, a standard “10b-5” statement for such offering, addressed to such Investor. The Company will also permit legal counsel to such investor to review and comment upon any such Investor Underwriter Registration Statement at least five business days prior to its filing with the SEC and all amendments and supplements to any such Investor Underwriter Registration Statement within a reasonable number of days prior to their filing with the SEC and not file any Investor Underwriter Registration Statement or amendment or supplement thereto in a form to which such Investor’s legal counsel reasonably objects.

6. **Expenses.** All expenses incurred by the Company or the Investors in effecting the registrations provided for in Sections 2, 3 and 4, including, without limitation, all registration and filing fees, printing expenses, fees and disbursements of counsel for the Company, fees and disbursements of one counsel for the Investors participating in such registration as a group (selected by the holders of a majority of the Registrable Securities that are being registered in such registration, up to a maximum of \$125,000), underwriting expenses (other than fees, commissions or discounts), expenses of any audits incident to or required by any such registration and expenses of complying with the securities or blue sky laws of any jurisdictions (all of such expenses referred to as "Registration Expenses"), shall be paid by the Company.

7. **Indemnification.**

(a) The Company shall indemnify and hold harmless each Investor that is a selling holder of Registrable Securities (including its partners (including partners of partners and shareholders of such partners)), each underwriter (as defined in the Securities Act), and directors, officers, employees and agents of any of them, and each other Person who participates in the offering of such securities and each other Person, if any, who controls (within the meaning of the Securities Act) such seller, underwriter or participating Person (individually and collectively, the "Indemnified Person") against any losses, claims, damages or liabilities (collectively, the "liability"), joint or several, to which such Indemnified Person may become subject under the Securities Act or any other statute or at common law, insofar as such liability (or action in respect thereof) arises out of or is based upon (i) any untrue statement or alleged untrue statement of any material fact contained, on the effective date thereof, in any registration statement under which such securities were registered under the Securities Act, any preliminary prospectus or final prospectus contained therein, or any amendment or supplement thereto, or any free writing prospectus used in connection with any offering, including but not limited to, any free writing prospectus used by the Company, the underwriters or the Investors, or (ii) any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, or (iii) any violation by the Company of the Securities Act, any state securities or "blue sky" laws or any sale or regulation thereunder in connection with such registration, or (iv) any information provided by the Company or at the instruction of the Company to any Person participating in the offer at the point of sale containing any untrue statement or alleged untrue statement of any material fact or omitting or allegedly omitting any material fact required to be included in such information or necessary to make the statements therein not misleading. Except as otherwise provided in Section 7(d), the Company shall reimburse each such Indemnified Person in connection with investigating or defending any such liability; provided, however, that the Company shall not be liable to any Indemnified Person in any such case to the extent that any such liability arises out of or is based upon any untrue statement or alleged untrue statement or omission or alleged omission made in such registration statement, preliminary or final prospectus, or amendment or supplement thereto, free writing prospectus, or other information, in reliance upon and in conformity with information furnished in writing to the Company by such Person specifically for use therein; and provided further, that the Company shall not be required to indemnify any Person against any liability arising from any untrue or misleading statement or omission contained in any preliminary prospectus if such deficiency is corrected in the final prospectus or for any liability which arises out of the failure of any Person to deliver a prospectus as required by the Securities Act regardless of any investigation made by or on behalf of such Indemnified Person and shall survive transfer of such securities by such seller; and provided, further that, the indemnity agreement contained in this Section 7(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Company (which consent shall not be unreasonably withheld).

(b) Each Investor holding any securities included in such registration being effected shall indemnify and hold harmless each other selling holder of any securities, the Company, its directors and officers, employees and agents, each underwriter and each other Person, if any, who controls (within the meaning of the Securities Act) the Company or such underwriter (individually and collectively also the "Indemnified Person"), against any liability, joint or several, to which any such Indemnified Person may become subject under the Securities Act or any other statute or at common law, insofar as such liability (or actions in respect thereof) arises out of or is based upon (i) any untrue statement or alleged untrue statement of any material fact contained, on the effective date thereof, in any registration statement under which securities were registered under the Securities Act at the request of such selling Investor, any preliminary prospectus or final prospectus contained therein, or any amendment or supplement thereto, or any free writing prospectus used in connection with such offering, including but not limited to, any free writing prospectus used by the Company, the underwriters, the Investors, or (ii) any omission or alleged omission by such selling Investor to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, or (iii) any information provided at the instruction of the Company to any Person participating in the offer at the point of sale containing any untrue statement or alleged untrue statement of any material fact or omitting or allegedly omitting any material fact required to be included in such information or necessary to make the statements therein not misleading, in the case of (i), (ii) and (iii) to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in such registration statement, preliminary or final prospectus, amendment or supplement thereto, free writing prospectus, or other information, in reliance upon and in conformity with information furnished in writing to the Company by such selling Investor specifically for use therein. Such selling Investor shall reimburse any Indemnified Person for any legal fees incurred in investigating or defending any such liability; provided, however, that in no event shall the liability of any Investor for indemnification under this Section 7 in its capacity as a seller of Registrable Securities exceed the lesser of (i) that proportion of the total of such losses, claims, damages, expenses or liabilities indemnified against equal to the proportion of the total securities sold under such registration statement which is being held by such Investor, or (ii) the amount equal to the proceeds to such Investor of the securities sold in any such registration; and provided further, however, that no selling Investor shall be required to indemnify any Person against any liability arising from any untrue or misleading statement or omission contained in any preliminary prospectus if such deficiency is corrected in the final prospectus or for any liability which arises out of the failure of any Person to deliver a prospectus as required by the Securities Act.

(c) Indemnification similar to that specified in Sections 7(a) and (b) shall be given by the Company and each selling holder (with such modifications as may be appropriate) with respect to any required registration or other qualification of their securities under any federal or state law or regulation of governmental authority other than the Securities Act.

(d) In the event the Company, any selling holder or other Person receives a complaint, claim or other notice of any liability or action, giving rise to a claim for indemnification under Sections 7(a), (b) or (c) above, the Person claiming indemnification under such paragraphs shall promptly notify the Person against whom indemnification is sought of such complaint, notice, claim or action, and such indemnifying Person shall have the right to investigate and defend any such loss, claim, damage, liability or action.

(e) If the indemnification provided for in this Section 7 for any reason is held by a court of competent jurisdiction to be unavailable to an Indemnified Person in respect of any losses, claims, damages expenses or liabilities referred to therein, then each indemnifying party under this Section 7, in lieu of indemnifying such indemnified party thereunder, shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages, expenses or liabilities (i) in such proportion as is appropriate to reflect the relative benefits received by the Company, the Investor or Investors and the underwriters from the offering of Registrable Securities or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company, the other Investors and the underwriters in connection with the statements or omissions which resulted in such losses, claims, damages expenses or liabilities, as well as any other relevant equitable considerations. The relative benefits received by the Company, the Investors and the underwriters shall be deemed to be in the same respective proportions that the net proceeds from the offering (before deducting expenses) received by the Company, the Investors, and the underwriting discount received by the underwriters, in each case as set forth in the table on the cover page of the applicable prospectus, bear to the aggregate public offering price of the Registrable Securities. The relative fault of the Company, the Investors and the underwriters shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company, the Investors, or the underwriters and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The Company, the Investors and the Underwriters agree that it would not be just and equitable if contribution to this Section 7 were determined by pro rata or per capita allocation or by any other method of allocation which does not take account the equitable considerations referred to in the immediately preceding paragraph. In no event, however, shall an Investor be required to contribute under this Section 7(e) in excess of the lesser of (i) that proportion of the total of such losses, claims, damages expenses or liabilities indemnified against equal to the proportion of the total Registrable Securities sold under such registration statement which are being sold by such Investor or (ii) the net proceeds received by such Investor from its sale of Registrable Securities under such registration statement. No Person found guilty of fraudulent representation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not found guilty of such fraudulent misrepresentation.

(f) The amount paid by an indemnifying party or payable to an Indemnified Person as a result of the losses, claims, damages, expenses and liabilities referred to in this Section 7 shall be deemed to include, subject to limitations set forth above, any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim, payable as the same are incurred. The indemnification and contribution provided for in this Section 7 will remain in full force and effect regardless of any investigation made by or on behalf of the indemnified parties or any other officer, director, employee, agent or controlling person of the indemnified parties. No indemnifying party, in the defense of any such claim or litigation, shall enter into a consent or entry of any judgment or enter into a settlement without the consent of the Indemnified Person, which consent will not be unreasonably withheld or delayed.

8. **Compliance with Rule 144.** For so long as the Company (i) has a class of securities registered under Section 12 of the Exchange Act or (ii) files reports under Section 13 or 15(d) of the Exchange Act, the Company will use its reasonable best efforts to file with the Commission such information as is required under the Exchange Act for so long as there are holders of Registrable Securities; and in such event, the Company shall use its reasonable best efforts to take all action as may be required as a condition to the availability of Rule 144 under the Securities Act (or any comparable successor rules). The Company shall furnish to any holder of Registrable Securities upon request a written statement executed by the Company as to the steps it has taken to comply with the current public information requirement of Rule 144 (or such comparable successor rules). Subject to the limitations on transfers imposed by this Agreement, the Company shall use its reasonable best efforts to facilitate and expedite transfers of Registrable Securities pursuant to Rule 144 under the Securities Act.

9. **Rule 144A Information.** The Company shall, upon written request of any Investor, provide to such Investor and to any prospective institutional transferee of the Common Stock designated by such Investor, such financial and other information as is available to the Company or can be obtained by the Company without material expense and as such Investor may reasonably determine is required to permit such transfer to comply with the requirements of Rule 144A promulgated under the Securities Act.

10. **Amendments.** The provisions of this Agreement may be amended, and the Company may take any action herein prohibited or omit to perform any act herein required to be performed by it, only if the Company has obtained the written consent of the holders of a majority of the Registrable Securities, *provided* that any rights given to any party hereto may be waived by such party hereto on such party's own behalf, without the consent of any other party; *provided further* that notwithstanding the foregoing, any amendment or modification to this Agreement that is disproportionate and adverse in any material respect to any individual Investor as compared to the other Investors shall require the written consent of such disproportionately and adversely impacted Investor. For the purposes of this Agreement and all agreements executed pursuant hereto, no course of dealing between or among any of the parties hereto and no delay on the part of any party hereto in exercising any rights hereunder or thereunder shall operate as a waiver of the rights hereof and thereof.

11. **Postponement.** The Company may postpone the filing of any registration statement required hereunder or suspend sales under a Shelf Registration Statement for a reasonable period of time, not to exceed ninety (90) days in the aggregate during any twelve (12) month period, if the filing or use of a Shelf Registration statement would require a special audit or the disclosure of a material impending transaction or other matter and the Company's Board of Directors determines reasonably and in good faith that such disclosure would have a material adverse effect on the Company (a "**Black Out Period**"). Upon notice of the existence of a Black Out Period from the Company to any Investor or Investors with respect to any registration statement already effective, such Investor or Investors shall refrain from selling their Registrable Securities under such registration statement until such Black Out Period has ended; *provided, however*, that the Company shall not impose a Black Out Period with respect to any registration statement that is already effective more than twice during any period of twelve (12) consecutive months.

12. **Market Stand-Off.** Each Investor agrees, that if requested by the Company and an underwriter of Registrable Securities of the Company in connection with any public offering of the Company, not to directly or indirectly offer, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant for the sale of or otherwise dispose of or transfer any shares held by it for such period, not to exceed ninety (90) days following the effective date of the relevant registration statement in connection with any public offering of Registrable Securities, as such underwriter shall specify reasonably and in good faith, provided, however, that all officers and directors of the Company and all 1% or greater stockholders of the Company enter into similar agreements. Notwithstanding anything in this Agreement, (i) none of the provisions of this Agreement shall in any way limit any Investor from engaging in any brokerage, investment advisory, financial advisory, anti-raid advisory, principal, merger advisory, financing, asset management, trading, market making, arbitrage, investment activity and other similar activities conducted in the ordinary course of their business, and (ii) the restrictions contained in this Agreement shall not apply to Registrable Securities acquired by any Investor Entity following the effective date of the first registration statement of the Company covering Registrable Securities to be sold on behalf of the Company in an underwritten public offering.

13. **Transferability of Registration Rights.** The registration rights set forth in this Agreement are transferable to each transferee of Registrable Securities. Each subsequent holder of Registrable Securities must consent in writing to be bound by the terms and conditions of this Agreement, in form and substance reasonably satisfactory to the Company, in order to acquire the rights granted pursuant to this Agreement.

14. **Rights Which May Be Granted to Subsequent Investors** Other than permitted transferees of Registrable Securities under this Section, the Company shall not, without the prior written consent of the Principal Investors, (a) allow purchasers of the Company's securities to become a party to this Agreement or (b) grant any other registration rights other than any incidental or so called piggyback registration rights to any third parties that are not inconsistent with the terms of this Agreement.

15. **Damages.** The Company recognizes and agrees that each holder of Registrable Securities will not have an adequate remedy if the Company fails to comply with the terms and provisions of this Agreement and that damages will not be readily ascertainable, and the Company expressly agrees that, in the event of such failure, it shall not oppose an application by any holder of Registrable Securities or any other Person entitled to the benefits of this Agreement requiring specific performance of any and all provisions hereof or enjoining the Company from continuing to commit any such breach of this Agreement.

16. **Miscellaneous.**

(a) **Notices.** All notices, requests, consents, claims, demands, waivers and other communications hereunder shall be in writing and shall be deemed to have been given: (a) when delivered by hand (with written confirmation of receipt); (b) when received by the addressee if sent by a nationally recognized overnight courier (receipt requested); (c) on the date sent by e-mail (with confirmation of transmission) if sent during normal business hours of the recipient, and on the next Business Day if sent after normal business hours of the recipient; or (d) on the third (3rd) day after the date mailed, by certified or registered mail, return receipt requested, postage prepaid. Such communications must be sent to the respective Parties at the following addresses (or at such other address for a party as shall be specified in a notice given in accordance with this Section 16):

if to the Company, to:

Global Clean Energy Holdings, Inc.
2790 Skypark Drive, Suite 105
Torrance, CA 90505
Attention: Richard Palmer
Fax: (310) 929-1139
Email: rpalmer@gceholdings.com

with a copy (which shall not constitute notice) to:

TroyGould PC
1801 Century Park East,
16th Floor
Los Angeles, CA 90067
Attention: Istvan Benko
Fax: (310) 789-1426
Email: IBenko@troygould.com

if to the Investors, to the Persons set forth under such Investor's name signature to this Agreement or to such other address as such Investor may designate to the Company in writing from time to time.

(b) **Governing Law.** This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, excluding any rule of law that would cause the application of the laws of any jurisdiction other than the laws of the State of Delaware. The parties hereby irrevocably and unconditionally submit to the jurisdiction of the state courts of Delaware and to the jurisdiction of the United States District Court for the District of Delaware for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement.

(c) Waiver of Jury Trial. EACH PARTY HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER TRANSACTION DOCUMENTS OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PERSON HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PERSON WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT AND THE OTHER TRANSACTION DOCUMENTS BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION.

(d) Counterparts This Agreement may be executed in one or more counterparts and by the parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original and all of which together shall be deemed to constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including .pdf) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and to be valid and effective for all purposes.

(e) Severability. If any provision of this Agreement shall be held to be illegal, invalid or unenforceable, such illegality, invalidity or unenforceability shall attach only to such provision and shall not in any manner affect or render illegal, invalid or unenforceable any other provision of this Agreement, and this Agreement shall be carried out as if any such illegal, invalid or unenforceable provision were not contained herein.

(f) Integration. This Agreement, including the exhibits, documents and instruments referred to herein or therein, constitutes the entire agreement among the parties with respect to the subject matter.

[SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, the parties hereto have caused this Registration Rights Agreement to be duly executed as of the date first set forth above.

COMPANY:

Global Clean Energy Holdings, Inc.

By: /s/Richard Palmer
Name: Richard Palmer
Title: President & CEO

[Signature Page to Registration Rights Agreement]

**ORION ENERGY CREDIT OPPORTUNITIES
FUND II, L.P.**

By: /s/ Gerrit Nicholas
Name: Gerrit Nicholas
Title: Managing Partner

**ORION ENERGY CREDIT OPPORTUNITIES
FUND II PV, L.P.**

By: /s/ Gerrit Nicholas
Name: Gerrit Nicholas
Title: Managing Partner

**ORION ENERGY CREDIT OPPORTUNITIES
FUND II GPFA, L.P.**

By: /s/ Gerrit Nicholas
Name: Gerrit Nicholas
Title: Managing Partner

**ORION ENERGY CREDIT OPPORTUNITIES
GCE CO-INVEST, L.P.**

By: /s/ Gerrit Nicholas
Name: Gerrit Nicholas
Title: Managing Partner

[Signature Page to Registration Rights Agreement]

**ORION ENERGY CREDIT OPPORTUNITIES
FUND III, L.P.**

By: /s/ Gerrit Nicholas
Name: Gerrit Nicholas
Title: Managing Partner

**ORION ENERGY CREDIT OPPORTUNITIES
FUND III PV, L.P.**

By: /s/ Gerrit Nicholas
Name: Gerrit Nicholas
Title: Managing Partner

**ORION ENERGY CREDIT OPPORTUNITIES
FUND III GPFA, L.P.**

By: /s/ Gerrit Nicholas
Name: Gerrit Nicholas
Title: Managing Partner

**ORION ENERGY CREDIT OPPORTUNITIES
FUND III GPFA PV, L.P.**

By: /s/ Gerrit Nicholas
Name: Gerrit Nicholas
Title: Managing Partner

[Signature Page to Registration Rights Agreement]

**VOYA RENEWABLE ENERGY
INFRASTRUCTURE ORIGINATOR I LLC**

By: Voya Alternative Asset Management LLC, as Agent

By: /s/ Edward Levin
Name: Edward Levin
Title: Senior Vice President

**VOYA RENEWABLE ENERGY
INFRASTRUCTURE ORIGINATOR L.P.**

By: Voya Alternative Asset Management LLC, as Agent

By: /s/ Edward Levin
Name: Edward Levin
Title: Senior Vice President

[Signature Page to Registration Rights Agreement]

LIF AIV 1, L.P.

By: GCM Investments GP, LLC, its General Partner

By: /s/ Todd Henigan

Name: Todd Henigan

Title: Authorized Signatory

[Signature Page to Registration Rights Agreement]

Schedule A

Principal Investors

Orion Energy Credit Opportunities Fund II, L.P.
Orion Energy Credit Opportunities Fund II PV, L.P.
Orion Energy Credit Opportunities Fund II GPFA, L.P.
Orion Energy Credit Opportunities GCE Co-Invest, L.P.
Orion Energy Credit Opportunities Fund III PV, L.P.
Orion Energy Credit Opportunities Fund III GPFA, L.P.
Orion Energy Credit Opportunities Fund III, L.P.
Orion Energy Credit Opportunities Fund III GPFA PV, L.P.

Schedule B

Other Investors

LIF AIV 1, L.P.
Voya Renewable Energy Infrastructure Originator I LLC
Voya Renewable Energy Infrastructure Originator L.P.

TroyGould PC
1801 Century Park East, 16th Floor
Los Angeles, California 90067

May 31, 2022

Global Clean Energy Holdings, Inc.
2790 Skypark Drive, Suite 105
Torrance, CA 90505

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to Global Clean Energy Holdings, Inc., a Delaware corporation (the “**Company**”), in connection with the above-referenced Registration Statement on Form S-3 (the “**Registration Statement**”), under the Securities Act of 1933, as amended (the “**Securities Act**”), filed by the Company with the Securities and Exchange Commission (the “**Commission**”). The Registration Statement relates to the registration for resale by the selling stockholders named in the Registration Statement (the “**Selling Stockholders**”) of up to an aggregate of 5,017,008 shares of the Company’s common stock, \$0.001 par value per share (the “**Shares**”), which are issuable upon the exercise of warrants (the “**Warrants**”) issued by the Company to the Selling Stockholders on February 23, 2022.

This opinion letter is furnished to you at your request and in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or prospectus forming a part of the Registration Statement, other than as to the validity of the Shares.

We are familiar with the corporate actions taken and proposed to be taken by the Company in connection with the authorization, issuance and sale of the Shares and have made such other legal and factual inquiries as we deem necessary for purposes of rendering this opinion. We have relied upon certificates and other assurances of officers of the Company and others as to factual matters; we have not independently verified such matters. We have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as copies and the authenticity of the originals of such copied documents. We have also assumed that the Shares are and will be evidenced by appropriate certificates that have been properly executed and delivered.

Our opinion is limited to the General Corporation Law of the State of Delaware and we express no opinion with respect to the laws, rules or regulations of any other jurisdiction, including, without limitation, the federal laws of the United States of America. No opinion is expressed herein with respect to the qualification of the Shares under the securities or blue sky laws of any state or any foreign jurisdiction.

The Shares may be issued from time to time on a delayed or continuous basis, and the opinions expressed below concern only laws that are in effect on the date of this opinion letter. We undertake no, and hereby disclaim any, obligation to advise you of any change in any matter set forth in this opinion letter, whether based on a change in laws, a change in any fact relating to the Company, or any other circumstance. This opinion letter is limited to the matters expressly stated herein, and no opinions are to be inferred or may be implied beyond the opinions expressly set forth below. Without limiting the generality of the foregoing, we neither express nor imply any opinion regarding the contents of the Registration Statement, the Prospectus, or any Prospectus Supplement other than as expressly stated in this opinion letter with respect to the issuance of the Securities.

Global Clean Energy Holdings, Inc.
May 31, 2022

Based on the foregoing and in reliance thereon, and subject to the qualifications and limitations set forth below, we are of the opinion that the Shares, when issued upon exercise of the Warrants in accordance with their respective terms, will be validly issued, fully paid and non-assessable.

This opinion letter is rendered to you in connection with the Registration Statement and may not be relied upon by you for any other purpose. We hereby consent to the filing of this opinion letter as an exhibit to the Registration Statement and further consent to the reference to our name under the caption "Legal Matters" in the Prospectus. In giving our consent, we do not thereby admit that we are included within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission under the Securities Act.

Very truly yours,

/s/ TroyGould PC

TROYGOULD PC

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our report dated April 4, 2022 with respect to the consolidated financial statements of Global Clean Energy Holdings, Inc. included in the Annual Report on Form 10-K for the year ended December 31, 2021, which are incorporated by reference in this Registration Statement. We consent to the incorporation by reference of the aforementioned report in this Registration Statement, and to the use of our name as it appears under the caption "Experts."

/s/ GRANT THORNTON LLP

Kansas City, Missouri

May 31, 2022

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the reference to our firm under the caption "Experts" in this Registration Statement (Form S-3) and related Prospectus of Global Clean Energy Holdings, Inc. and to the incorporation by reference therein of our report dated April 12, 2021, included in its Annual Report (Form 10-K) for the year ended December 31, 2020, filed with the Securities and Exchange Commission.

Macias Gini & O'Connell LLP

Irvine, CA
May 31, 2022

Calculation of Filing Fee Tables

Form S-3
(Form Type)

Global Clean Energy Holdings, Inc.
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered and Carry Forward Securities

Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered (1)	Proposed Maximum Offering Price Per Share(2)	Maximum Aggregate Offering Price (2)	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial effective date	Filing Fee Previously Paid In Connection with Unsold Securities to be Carried Forward
Newly Registered Securities											
Fees to be Paid	Equity	Common Stock, \$0.001 par value	5,017,008	\$ 2.81	\$ 14,097,792.48	0.0000927	\$ 1,306.87				
Fees Previously Paid	—	—	—	—	—	—	—				
Carry Forward Securities											
Carry Forward Securities	—	—	—	—	—	—	—	—	—	—	—
Total Offering Amounts					\$ 14,097,792.48		\$ 1,306.87				
Total Fees Previously Paid							—				
Total Fee Offsets							—				
Net Fee Due							\$ 1,306.87				

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), the number of shares of the registrant's common stock being registered hereunder includes such indeterminate number of additional shares of common stock as may become issuable as a result of any stock splits, stock dividends or similar transactions.
- (2) In accordance with Rule 457(g) under the Securities Act of 1933, as amended, the aggregate offering price of the shares of common stock is estimated solely for the calculation of the registration fee due for this filing. This estimate was based on the average of the high and low sales prices of the Registrant's common stock reported by the OTCQB Venture Market on May 25, 2022, which was \$2.81.