UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

CLEAN ENERGY FUELS CORP.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization)

33-0968580

(I.R.S. Employer Identification No.)

4675 MacArthur Court, Suite 800 Newport Beach, California 92660 (949) 437-1000

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

Andrew J. Littlefair President and Chief Executive Officer Clean Energy Fuels Corp. 4675 MacArthur Court, Suite 800 Newport Beach, California 92660 (949) 437-1000

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

J. Nathan Jensen, Esq. Vice President and General Counsel Clean Energy Fuels Corp. 4675 MacArthur Court, Suite 800 Newport Beach, California 92660 Telephone: (949) 437-1180 Facsimile: (949) 424-8285 Steven G. Rowles, Esq. Morrison & Foerster LLP 12531 High Bluff Drive, Suite 100 San Diego, California 92130-2040 Telephone: (858) 720-5198 Facsimile: (858) 523-2810

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. o

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. x

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. o

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

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. o

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. o

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

Large accelerated filer x Accelerated filer o Smaller reporting company o Obonaccelerated filer Smaller reporting company

CALCULATION OF REGISTRATION FEE

| | | Proposed | | Proposed | |
|---|----------------|----------------|-------|-----------------|----------------|
| | | maximum | | maximum | Amount of |
| Title of each class of | Amount to be | offering price | | aggregate | registration |
| securities to be registered | registered (1) | per unit (2) | | offering price | fee |
| Common Stock, par value \$.0001 per share | 761,545 | \$ | 12.78 | \$ 9,732,546 | \$ 1,328.00 |

- (1) Represents the shares of common stock issued to the selling stockholder. Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), the common stock of the registrant offered hereby shall be deemed to cover additional securities to be issued as a result of stock splits, stock dividends or similar transactions.
 (2) Estimated for purposes of calculating the registration fee in accordance with Rule 457(c) under the Securities Act, based upon the average of the high and low price of the common stock as provided by the Nasdaq
- (2) Estimated for purposes of calculating the registration fee in accordance with Rule 457(c) under the Securities Act, based upon the average of the high and low price of the common stock as provided by the Nasdac Global Market on August 7, 2013.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant files a further amendment which specifically states that this registration statement is to become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement becomes effective on the date the Commission, acting under Section 8(a), determines.

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The information in this prospectus is not complete and may be changed. These securities may not be sold 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.



Clean Energy Fuels Corp. 761,545 Shares of Common Stock

The selling stockholder identified in this prospectus is offering up to 761,545 shares of our common stock, par value \$0.0001 per share. We issued such shares of common stock to the selling stockholder in connection with our acquisition of Mansfield Gas Equipment Systems Corporation on May 6, 2013. This prospectus may be used by the selling stockholder named herein or its transferees, pledgees, dones or their successors, to resell, from time to time, these shares of our common stock. If required, we will set forth the names of any other selling stockholders in a prospectus supplement or post-effective amendment to the registration statement of which this prospectus is a part. We will not receive any proceeds from the sale of any shares of our common stock offered by this prospectus.

The selling stockholder or its transferees, pledges, donees or their successors may sell the shares of common stock from time to time in the open market, on the Nasdaq Global Market, in privately negotiated transactions or a combination of these methods, at market prices prevailing at the time of sale, at prices related to the prevailing market prices, at negotiated prices, or otherwise as described under the section of this prospectus titled "Plan of Distribution."

Our common stock is listed on the Nasdaq Global Market and trades under the symbol "CLNE." On August 8, 2013 the closing sale price of our common stock was \$12.75 per share.

Investing in our securities involves a high degree of risk. You should carefully consider the risks described under "Risk Factors" in Item 1A of our most recent Quarterly Report on Form 10-Q filed on August 8, 2013 (which document is incorporated by reference herein), as well as the other information contained or incorporated by reference in this prospectus or in any supplement hereto before making a decision to invest in our securities. See "Available Information" below.

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 2013.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we have filed with the Securities and Exchange Commission, or the SEC, using a "shelf" registration process. Under this shelf registration process, the selling stockholder may, from time to time, offer and sell up to 761,545 shares of our common stock.

This prospectus provides you with a general description of the securities the selling stockholder may offer. Each time the selling stockholder offers the securities described in this prospectus, we may provide a prospectus supplement, or information that is incorporated by reference into this prospectus, containing more specific information about the terms of the offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. We may also add, update or change in the prospectus supplement any of the information contained in this prospectus or in the documents that we have incorporated by reference into this prospectus, including without limitation, a discussion of any risk factors or other special considerations that apply to these offerings of securities or the specific plan of distribution. If there is any inconsistency between the information in this prospectus and a prospectus supplement or information incorporated by reference having a later date, you should rely on the information in that prospectus supplement or incorporated information having a later date. We urge you to read carefully this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading "Incorporation of Certain Information by Reference," before buying any of the securities being offered.

You should rely only on the information we have provided or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectus. We have not authorized anyone to provide you with different information. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus.

The registration statement containing this prospectus, including exhibits to the registration statement, provides additional information about us and the securities offered under this prospectus and any prospectus supplement. We have filed and plan to continue to file other documents with the SEC that contain information about us and our business. Also, we will file legal documents that control the terms of the securities offered by this prospectus as exhibits to the reports that we file with the SEC. The registration statement and other reports can be read at the SEC web site or at the SEC offices mentioned under the heading "Available Information."

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SUMMARY

Our Company

We are the leading provider of natural gas as an alternative fuel for vehicle fleets in the United States and Canada, based on the number of stations operated and the amount of gasoline gallon equivalents of compressed natural gas (CNG) and liquefied natural gas (LNG) delivered. We design, build, operate and maintain fueling stations and supply our customers with CNG fuel for light, medium and heavy-duty vehicles and LNG fuel for medium and heavy-duty vehicles. We also sell non-lubricated natural gas compressors and related equipment used in CNG stations and LNG stations, produce renewable natural gas (RNG), which can be used as vehicle fuel or sold for power generation, and sell tradable credits we generate by selling natural gas and RNG as a vehicle fuel, including credits we generate under the California Low Carbon Fuel Standard and Renewable Identification Numbers we generate under the federal Renewable Fuel Standard Phase 2. In addition, we help our customers acquire and finance natural gas vehicles and obtain local, state and federal grants and incentives.

Our principal executive offices are located at 4675 MacArthur Court, Suite 800, Newport Beach, California 92660, and our telephone number at that location is (949) 437-1000. Our web site is located at www.cleanenergyfuels.com. The reference to our website is intended to be an inactive textual reference and the contents of our website are not intended to be incorporated into this prospectus.

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The Offering

Securities offered by the Selling

Stockholder

761,545 shares of our common stock.

Use of Proceeds

We will not receive any proceeds from the sale of common stock by the selling stockholder.

Trading

Our common stock is quoted on the Nasdaq Global Market and trades under the symbol "CLNE."

Dividend Policy

We do not intend to declare dividends for the foreseeable future, as we anticipate that we will reinvest any future earnings in the

development and growth of our business.

Risk Factors

See "Risk Factors" in Item 1A of our most recent Quarterly Report on Form 10-Q filed on August 8, 2013 and in other documents that we subsequently file with the SEC, all of which are incorporated by reference to this prospectus, for a discussion of the factors you should carefully consider before deciding to invest in the shares of our common stock being offered by the selling stockholder.

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CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents we incorporate by reference herein, contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the "Exchange Act", and Section 21E of the Securities Exchange Act of 1934, as amended, or the "Exchange Act". Such statements include, without limitation, statements regarding our expectations, hopes or intentions regarding the future. These forward looking statements can often be identified by their use of words such as "expect," "believe," "anticipate," "outlook," "could," "target," "project," "intend," "plan," "seek," "estimate," "should," "may" and "assume," as well as variations of such words and similar expressions referring to the future. They also include statements concerning anticipated revenues, income or loss, capital expenditures, dividends, capital structure or other financial terms. For a non-exhaustive list of certain forward-looking statements that are incorporated by reference into or deemed to be a part of this prospectus, please refer to the "Cautionary Note Regarding Forward-Looking Statements" in our Annual Report on Form 10-K for the year ended December 31, 2012, as well as any list of forward-looking statements included in our other reports filed from time to time with the SEC that are incorporated by reference into this prospectus.

Forward-looking statements involve certain risks and uncertainties, many of which are beyond our control. If any of those risks and uncertainties materialize, actual results could differ materially from those discussed in any such forward-looking statement. Among the factors that could cause actual results to differ materially from those discussed in forward-looking statements are those discussed under the heading "Risk Factors" and in other sections of (i) our Annual Report on Form 10-K for the year ended December 31, 2012, (ii) our Quarterly Report on Form 10-Q for the quarter ended June 30, 2013, (iii) our other reports filed from time to time with the SEC that are incorporated by reference into this prospectus, or (iv) this prospectus. See "Incorporation of Certain Information by Reference" and "Available Information" for information about how to obtain copies of those documents.

All forward-looking statements in this prospectus and the documents incorporated by reference herein are made only as of the date of the document in which they are contained, based on information available to us as of the date of that document, and we caution you not to place undue reliance on forward-looking statements in light of the risks and uncertainties associated with them. Except as required by law, we undertake no obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.

RISK FACTORS

You should carefully consider, among other things, the matters discussed under "Risk Factors" in Item 1A of our most recent Quarterly Report on Form 10-Q for the quarter ended June 30, 2013, filed on August 8, 2013, and in other documents that we subsequently file with the SEC, all of which are incorporated by reference into this prospectus. Each of the referenced risks and uncertainties could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our securities. Additional risks not known to us or that we believe are immaterial may also adversely affect our business, operating results and financial condition and the value of an investment in our securities.

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USE OF PROCEEDS

Because the selling stockholder will sell the shares of our common stock offered under this prospectus, we will receive no cash proceeds. All proceeds from the sale of our common stock offered under this prospectus will be for the account of the selling stockholder, as described below. See "Selling Stockholder" and "Plan of Distribution" described below.

DIVIDEND POLICY

We have never paid cash dividends on our common stock, and we do not intend to declare dividends for the foreseeable future, as we anticipate that we will reinvest any future earnings in the development and growth of our business.

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DESCRIPTION OF COMMON STOCK

General

The following summary of the material features of our common stock does not purport to be complete and is subject to, and qualified in its entirety by, the provisions of our restated certificate of incorporation, our amended and restated bylaws and other applicable law. See "Available Information."

Pursuant to our restated certificate of incorporation, we are currently authorized to issue 149,000,000 shares of common stock, par value \$0.0001 per share, and 1,000,000 shares of preferred stock, par value \$0.0001 per share. The authorized shares of our common stock and preferred stock will be available for issuance without further action by our stockholders, unless such action is required by applicable law or the rules of any stock exchange or automated quotation system on which our securities may be listed or traded. If the approval of our stockholders is not required, our board of directors may determine not to seek stockholder approval.

Dividends

Subject to provisions of the Delaware General Corporation Law, or the DGCL, and to any future rights which may be granted to the holders of any series of our preferred stock, dividends are paid on our common stock when and as declared by our board of directors out of funds legally available for dividend payments.

Voting rights

Each holder of shares of our common stock is entitled to one vote per share on all matters submitted to a vote of our common stockholders. Holders of our common stock are not entitled to cumulative voting rights.

Liquidation

If we are liquidated, holders of our common stock are entitled to receive all remaining assets available for distribution to stockholders after satisfaction of our liabilities and the preferential rights of any of our preferred stock that may be outstanding at that time.

Preemptive rights

The holders of our common stock do not have any preemptive, conversion or redemption rights by virtue of their ownership of the common stock.

Certain Anti-Takeover Matters

Our restated certificate of incorporation and amended and restated bylaws include a number of provisions that may have the effect of encouraging persons considering unsolicited tender offers or other unilateral takeover proposals to negotiate with our board of directors rather than pursue non-negotiated takeover attempts. These provisions include:

Advance Notice Requirements

Our amended and restated bylaws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of such stockholder proposals must be timely and given in writing to our Secretary prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 60 days nor more than 90 days prior to the anniversary date of the annual meeting for the preceding year. The notice must contain certain information specified in the amended and restated bylaws.

Preferred Stock

Our restated certificate of incorporation provides for 1,000,000 authorized shares of preferred stock. The existence of authorized but unissued shares of preferred stock may enable the board of directors to render more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise. For example, if in the due exercise of its fiduciary obligations, the board of directors were to determine that a takeover proposal is not in our best interests, the board of directors could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquiror or insurgent stockholder or stockholder group. In this regard, our restated certificate of incorporation grants our board of directors broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amount of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of such holders and may have the effect of delaying, deterring or preventing a change of control of us.

Delaware Takeover Statutes

We are subject to the provisions of Section 203 of the DGCL regulating corporate takeovers. In general, Section 203 prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder, unless:

- the transaction is approved by the board of directors before the date the interested stockholder attained that status;
- · upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced; or
- on or after the date the business combination is approved by the board of directors, the business combination is authorized at a meeting of stockholders by at least two-thirds of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 defines "business combination" to include the following:

- any sale, lease, exchange, mortgage, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- any merger or consolidation involving the corporation or any majority-owned subsidiary and the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation or by any majority-owned subsidiary of any stock of the corporation or of such subsidiary to the interested stockholder;
- any transaction involving the corporation or any majority-owned subsidiary that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation or any majority-owned subsidiary.

In general, Section 203 defines "interested stockholder" to be any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by any of these entities or persons. A Delaware corporation may opt out of this provision either with an express provision in its original certificate of incorporation or in an amendment to its certificate of incorporation or bylaws approved by its stockholders. We have not opted out of this provision. Section 203 could prohibit or delay mergers or other takeover or change in control attempts and, accordingly, may discourage attempts to acquire us.

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Limitation of Liability and Indemnification Matters

Our restated certificate of incorporation provides that a director of ours will not be liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except in certain cases where liability is mandated by the DGCL. Our amended and restated bylaws also provide for indemnification, to the fullest extent permitted by law, by us of any person made or threatened to be made a party to, or who is involved in, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such person is or was our director or officer, or at our request, serves or served as a director or officer of any other enterprise, against all expenses, liabilities, losses and claims actually incurred or suffered by such person in connection with the action, suit or proceeding. Our amended and restated bylaws also provide that, to the extent authorized from time to time by our board of directors, we may provide indemnification to any one or more employees and other agents of ours to the extent and effect determined by the board of directors to be appropriate and authorized by the DGCL. Our amended and restated bylaws also permit us to purchase and maintain insurance for the foregoing and we expect to maintain such insurance.

Listing

Our common stock is listed on the Nasdaq Global Market and trades under the symbol "CLNE."

Transfer Agent and Registrar

The Transfer Agent and Registrar for our common stock is Computershare Trust Company, N.A.

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SELLING STOCKHOLDER

The selling stockholder, or its transferees, pledgees, donees or their successors, may resell, from time to time, all, some or none of the shares of our common stock covered by this prospectus, as provided in this prospectus under the section entitled "Plan of Distribution" and in any applicable prospectus supplement. However, we do not know when or in what amount the selling stockholder may offer their shares for sale under this prospectus, if any.

The following table, which was prepared based on information publicly filed or supplied to us by the selling stockholder, sets forth the name of the selling stockholder, the number of shares beneficially owned by the selling stockholder and the number of shares to be offered by the selling stockholder pursuant to this prospectus. The table also provides information regarding the beneficial ownership of our common stock by the selling stockholder, as adjusted to reflect the assumed sale of all of the shares of common stock offered under this prospectus. The ownership percentage indicated in the following table is based on 89,336,126 outstanding shares of our common stock as of July 31, 2013.

Beneficial ownership is determined in accordance with the rules of the SEC. The address of the selling stockholder is: c/o Clean Energy Fuels Corp., 4675 MacArthur Court, Suite 800, Newport Beach, California 92660.

| | | | Number of | | |
|-----------------------------|-------------------|------------|-----------|----------------|------------|
| | Beneficial Ov | nership | Shares | Beneficial (| Ownership |
| | Prior to Offering | | Offered | After Offering | |
| Name of Selling Stockholder | Number | Percentage | Hereby | Number | Percentage |
| Mansfield Energy Corp. (1) | 761.545 | * | 761.545 | _ | _% |

^{*}Represents beneficial ownership of less than one percent (1%).

(1) Michael Mansfield, Sr. owns 100% of the voting stock of Mansfield Energy Corp., is its chief executive officer and may be deemed to be the beneficial owner of the shares of common stock beneficially owned by Mansfield Energy Corp.

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PLAN OF DISTRIBUTION

The selling stockholder, and its pledgees, assignees, donees, or other successors-in-interest may, from time to time, sell any or all of its shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. If the shares of common stock are sold through underwriters, broker-dealers or agents, the selling stockholder will be responsible for underwriting discounts or commissions or agent's commissions. These sales may be at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or negotiated prices. The selling stockholder may use any one or more of the following methods when selling shares:

- · block transactions (which may involve crosses) and transactions on the Nasdaq Global Market or any other organized market where the securities may be traded;
- · purchases by a broker-dealer as principal and resale by the broker-dealer for its own account;
- ordinary brokerage transactions and transactions in which a broker-dealer solicits purchasers;
- sales "at the market" to or through a market maker or into an existing trading market, on an exchange or otherwise;
- sales in other ways not involving market makers or established trading markets, including direct sales to purchasers in privately negotiated transactions;
- · a combination of any such methods of sale; and
- · any other method permitted pursuant to applicable law.

The selling stockholder may also engage in short sales against the box, puts and calls and other transactions in our securities or derivatives of our securities and may sell or deliver shares in connection with these trades.

Broker-dealers engaged by the selling stockholder may arrange for other broker-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholder (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated. The selling stockholder does not expect these commissions and discounts to exceed what is customary in the types of transactions involved. Any profits on the resale of shares of common stock by a broker-dealer acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. Discounts, concessions, commissions and similar selling expenses, if any, attributable to the sale of shares will be borne by the selling stockholder. The selling stockholder may agree to indemnify any agent, dealer or broker-dealer that participates in transactions involving sales of the shares if liabilities are imposed on that person under the Securities Act.

In connection with the sale of the shares of common stock or otherwise, the selling stockholder 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 stockholder may also sell shares of common stock short and deliver shares of common stock covered by this prospectus to close out short positions and to return borrowed shares in connection with such short sales. The selling stockholder may also loan or pledge shares of common stock to broker-dealers that in turn may sell such shares.

The selling stockholder may from time to time pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or

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secured parties may offer and sell the shares of common stock from time to time under this prospectus after we have filed an update to this prospectus under Rule 424(b) under the Securities Act or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors-in-interest as selling stockholders under this prospectus.

The selling stockholder also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors-in-interest will be the selling beneficial owners for purposes of this prospectus and may sell the shares of common stock from time to time under this prospectus after we have filed an update to this prospectus under Rule 424(b) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors-in-interest as selling stockholders under this prospectus. The selling stockholder also may transfer and donate the shares of common stock in other circumstances in which case the transferees, donees, pledgees or other successors-in-interest will be the selling beneficial owners for purposes of this prospectus.

The selling stockholder and any broker-dealers or agents that are involved in selling the shares may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. In such event, any commissions paid, or any discounts or concessions allowed to, such broker-dealers or agents and any profit realized on the resale of the shares purchased by them 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 filed that 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 stockholder and any discounts, commissions or concessions allowed or reallowed or paid to broker-dealers. 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. There can be no assurance that the selling stockholder will sell any or all of the shares of common stock registered pursuant to the registration statement, of which this prospectus is deemed a part.

The anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of our common stock and activities of the selling stockholder, which may limit the timing of purchases and sales of any of the shares of common stock by the selling stockholder and any other participating person. Regulation M may also restrict the ability of any person engaged in the distribution of the shares of common stock to engage in passive market-making activities with respect to the shares of common stock. Passive market-making involves transactions in which a market-maker acts as both our underwriter and as a purchaser of our common stock in the secondary market. 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.

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LEGAL MATTERS

Morrison & Foerster LLP will pass upon the validity of the securities offered by this prospectus.

EXPERTS

The consolidated financial statements and schedule of Clean Energy Fuels Corp. as of December 31, 2012 and 2011 and for each of the years in the three-year period ended December 31, 2012, and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2012 have been incorporated by reference herein in reliance upon the report of KPMG LLP, independent registered public accounting firm, and upon the authority of said firm as experts in auditing and accounting.

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AVAILABLE INFORMATION

We are required to file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any documents filed by us at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. Our filings with the SEC are also available to the public through the SEC's web site at http://www.sec.gov.

We have filed with the SEC a registration statement on Form S-3, of which this prospectus is a part, relating to the securities covered by this prospectus. This prospectus is a part of the registration statement and does not contain all the information in the registration statement. Whenever a reference is made in this prospectus to a contract or other document of the Company, the reference is only a summary and you should refer to the exhibits that are a part of or incorporated by reference into the registration statement for a copy of the contract or other document. You may review a copy of the registration statement at the SEC's public reference room in Washington, D.C., as well as through the SEC's web site.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC and applicable law permits us to "incorporate by reference" into this prospectus information that we have or may in the future file with or furnish to the SEC. This means that we can disclose important information by referring you to those documents. You should read carefully the information incorporated herein by reference because it is an important part of this prospectus.

We incorporate by reference into this prospectus the following documents or information filed with the SEC (other than, in each case, documents or information deemed to have been furnished and not filed in accordance with SEC rules):

- · Our Annual Report on Form 10-K for the year ended December 31, 2012;
- Our Quarterly Report on Form 10-Q for the periods ended March 31, 2013 and June 30, 2013;
- Our Current Reports on Form 8-K filed with the SEC on April 26, 2013; May 7, 2013; May 9, 2013; June 18, 2013; and June 28, 2013;
- · The description of our common stock contained in the Registration Statement on Form S-1, which became effective on May 24, 2007, including any amendment or report filed for the purpose of updating such description; and
- All documents filed by Clean Energy Fuels Corp. under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, after the filing date of this initial registration statement and prior to the date of effectiveness of this registration statement, and on or after the date of this prospectus and before the termination of this offering shall be deemed to be incorporated by reference into this prospectus from the respective dates of filing of such documents.

Any information that we subsequently file with the SEC that is incorporated by reference as described above will automatically update and supersede any previous information that is part of this prospectus.

We will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon his or her written or oral request, a copy of any or all documents referred to above which have been or may be incorporated by reference into this prospectus excluding exhibits to those documents unless they are specifically incorporated by reference into those documents. Written or telephone requests should be directed to Clean Energy Fuels Corp., Attn: Investor Relations, 4675 MacArthur Court, Suite 800, Newport Beach, California 92660, (949) 437-1000.

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PART II

Information Not Required in Prospectus

Item 14. Other Expenses of Issuance and Distribution

The following is a statement of the estimated expenses (other than underwriting discounts and commissions) to be incurred by Clean Energy Fuels Corp. in connection with the issuance and distribution of the securities registered under this registration statement.

| SEC registration fee | \$ 1,328 |
|---------------------------------|--------------|
| Accounting fees and expenses | \$ 5,000 |
| Legal fees and expenses | \$ 6,000 |
| Printing fees | \$ 5,000 |
| Miscellaneous fees and expenses | \$ 1,000 |
| Total | \$ 18,328 |

^{*}Expenses are estimated and exact amounts are not presently known.

Item 15. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law provides that a corporation may indemnify directors and officers as well as other employees and individuals against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with any threatened, pending or completed actions, suits or proceedings in which such person is made a party by reason of such person being or having been a director, officer, employee or agent to the corporation. The Delaware General Corporation Law provides that Section 145 is not exclusive of other rights to which those seeking indemnification may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise.

Our restated certificate of incorporation and our amended and restated bylaws provide in effect that, subject to certain limited exceptions, we may indemnify our directors and officers to the extent authorized and permitted by the Delaware General Corporation Law. We have also maintained policies to insure our directors and officers, subject to the limits of the policies, against certain losses arising from any claims made against them by reason of being or having been such directors or officers. In addition, we have entered into contracts with certain of our directors and officers providing for indemnification of such persons by us to the full extent authorized or permitted by law, subject to certain limited exceptions.

Section 102(b)(7) of the Delaware General Corporation Law permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (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) for unlawful payments of dividends or unlawful stock repurchases, redemptions or other distributions, or (iv) for any transaction from which the director derived an improper personal benefit.

Our restated certificate of incorporation provides that, to the fullest extent permitted by the Delaware General Corporation Law, a director shall not be liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director.

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Item 16. Exhibits

| Exhibit No. | Description |
|-------------|--|
| 5.1 | Opinion of Morrison & Foerster LLP |
| 23.1 | Consent of Morrison & Foerster LLP (included in Exhibit 5.1) |
| 23.2 | Consent of KPMG LLP |
| 24.1 | Powers of Attorney (included on signature page to this registration statement) |
| | |
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Item 17. Undertakings

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 of 1933;
- (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 Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent 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 (1)(i), (1)(ii) and (1)(iii) above 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 Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 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 of 1933, 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 of 1933 to any purchaser:
- (i) 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
- (ii) 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 of 1933 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 the 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 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 such effective date.

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(5) That, for the purpose of determining liability of the Registrant under the Securities Act of 1933 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 or sell such securities to such purchaser:

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- (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.
- (6) That, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) 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.
- (7) That, insofar as indemnification for liabilities arising under the Securities Act of 1933 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 Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 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 of 1933 and will be governed by the final adjudication of such issue.

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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 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Newport Beach, State of California, on the 9th day of August, 2013.

CLEAN ENERGY FUELS CORP.

By: /s/ Richard R. Wheeler

Name: Richard R. Wheeler

Title: Chief Financial Officer

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Andrew J. Littlefair and Richard R. Wheeler as his true and lawful agent, proxy and attorney-infact, each acting alone, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to (i) act on, sign, and file with the SEC any and all amendments (including post-effective amendments) to this registration statement together with all schedules and exhibits thereto, (ii) act on, sign and file such certificates, instruments, agreements and other documents as may be necessary or appropriate in connection therewith, (iii) act on and file any supplement to any prospectus included in this registration statement or any such amendment or any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act, and (iv) take any and all actions which may be necessary or appropriate to be done, as fully for all intents and purposes as he might or could do in person, hereby approving, ratifying and

confirming all that such agent, proxy and attorney-in-fact or any of his substitutes may lawfully do or cause to be done by virtue thereof. IN WITNESS WHEREOF, each person whose signature appears below has executed this Power of Attorney as of the date indicated.

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

| Signature | Title | Date | |
|---|---|----------------|--|
| /s/ Andrew J. Littlefair Andrew J. Littlefair | Director, Chief Executive Officer and President (principal executive officer) | August 9, 2013 | |
| /s/ Richard R. Wheeler Richard R. Wheeler | Chief Financial Officer (principal financial and accounting officer) | August 9, 2013 | |
| /s/ Warren I. Mitchell Warren I. Mitchell | Director and Chairman of the Board | August 9, 2013 | |
| /s/ John S. Herrington John S. Herrington | Director | August 9, 2013 | |
| /s/ James C. Miller III James C. Miller III | Director | August 9, 2013 | |
| /s/ Boone Pickens Boone Pickens | Director | August 9, 2013 | |
| /s/ Kenneth M. Socha Kenneth M. Socha | Director | August 9, 2013 | |
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| Signature | Title | Date | |
| /s/ Vincent C. Taormina Vincent C. Taormina | Director | August 9, 2013 | |
| /s/ James E. O'Connor James E. O'Connor | Director | August 9, 2013 | |
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EXHIBIT INDEX

| Exhibit No. | Description |
|-------------|--|
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| 24.1 | Powers of Attorney (included on signature page to this registration statement) |
| | |

MORRISON FOERSTER

12531 HIGH BLUFF DRIVE SAN DIEGO, CALIFORNIA

92130-2040

TELEPHONE: 858.720.5100 FACSIMILE: 858.720.5125

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MORRISON & FOERSTER LLP

NEW YORK, SAN FRANCISCO, LOS ANGELES, PALO ALTO, SACRAMENTO, SAN DIEGO, DENVER. NORTHERN VIRGINIA. WASHINGTON, D.C.

TOKYO, LONDON, BRUSSELS, BEIJING, SHANGHAI, HONG KONG, SINGAPORE

August 9, 2013

Clean Energy Fuels Corp. 4675 MacArthur Court, Suite 800 Newport Beach, CA 92660

Re: 761,545 Shares of Common Stock of Clean Energy Fuels Corp.

Ladies and Gentlemen:

We have acted as counsel to Clean Energy Fuels Corp., a Delaware Corporation (the "Company"), in connection with the registration by the Company of 761,545 shares of the Company's Common Stock, par value \$0.0001 per share (collectively, the "Shares"), pursuant to a Registration Statement on Form S-3 (the "Registration Statement") being filed by the Company with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Act"), and the related prospectus included therein (the "Prospectus"). All of the Shares are to be sold by the stockholder named in the Registration Statement and the related Prospectus, in the manner described therein.

In connection with this opinion, we have examined the Company's Restated Certificate of Incorporation, and the Company's Amended and Restated Bylaws, both as currently in effect, such other records of the corporate proceedings of the Company and certificates of the Company's officers as we have deemed relevant, the Registration Statement and the exhibits thereto, and the related Prospectus. In addition, we have examined such records, documents, certificates of public officials and the Company, made such inquiries of officials of the Company and considered such questions of law as we have deemed necessary for the purpose of rendering the opinion set forth herein. In such examination, we have assumed the genuineness of all signatures and the authenticity of all items submitted to us as originals and the conformity with originals of all items submitted to us as copies.

Based upon, subject to and limited by the foregoing, we are of the opinion that the Shares have been duly and validly authorized, and are legally issued, fully paid and nonassessable.

We express no opinion as to matters governed by any laws other than the Delaware General Corporation Law in effect on the date hereof.

We hereby consent to the filing of this opinion letter as Exhibit 5.1 to the Registration Statement and to the reference to us under the caption "Legal Matters" in the Prospectus. In giving such consent, we do not hereby admit that we are acting within the category of persons whose consent is required under Section 7 of the Act or the rules or regulations of the Commission thereunder.

Very truly yours,

/s/ Morrison & Foerster LLP

Morrison & Foerster LLP

Consent of Independent Registered Public Accounting Firm

The Board of Directors Clean Energy Fuels Corp.:

We consent to the use of our report dated February 28, 2013, with respect to the consolidated balance sheets of Clean Energy Fuels Corp. and subsidiaries as of December 31, 2012 and 2011, and the related consolidated statements of operations, stockholders' equity and comprehensive income (loss), and cash flows for each of the years in the three-year period ended December 31, 2012, and the related financial statement schedule, and the effectiveness of internal control over financial reporting as of December 31, 2012, incorporated herein by reference and to reference to our firm under the heading "Experts" in the prospectus.

KPMG LLP Los Angeles, California August 9, 2013