UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8

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.)

3020 Old Ranch Parkway, Suite 400 Seal Beach, California

(Address of Principal Executive Offices)

90740

(Zip Code)

AMENDED & RESTATED 2006 EQUITY INCENTIVE PLAN

(Full title of the plan)

Andrew J. Littlefair President and Chief Executive Officer Clean Energy Fuels Corp. 3020 Old Ranch Parkway, Suite 400 Seal Beach, California 90740

(Name and Address of Agent For Service)

(562) 493-2804

(Telephone number, including area code, of agent for service)

Copy to:

Andrew D. Thorpe, Esq. Morrison & Foerster LLP

425 Market Street, 32nd Floor San Francisco, California 94105

Telephone: (415) 268-7000 Fax: (415) 268-7522

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-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. (Check one):

Large Accelerated filer o

Accelerated filer x

Non-accelerated filer o (Do not check if a smaller reporting company)

Smaller reporting company o

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share (2)	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, par value \$0.0001 per share	1,000,000 shares	\$ 13.95	\$ 13,950,000	\$ 1,620.00(3)

- (1) In accordance with Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement shall cover any additional securities that may from time to time be offered or issued under the adjustment provisions of the employee benefit plan to prevent dilution resulting from stock splits, stock dividends or similar transactions.
- (2) Estimated solely for the purpose of calculating the registration fee in accordance with Rules 457(c) and (h) promulgated under the Securities Act, based upon the average of the high and low prices of the registrant's common stock as reported on the Nasdaq Global Market on January 5, 2011.
- (3) No payment of registration fee is being made in connection with the filing of this registration statement. Rather, \$1,620.00 of the registration fee for this registration statement is being offset, pursuant to Rule 457(p) under the Securities Act, by the registration fees paid in connection with unsold securities registered by the registrant under Registration Statement No. 333-137124 (initially filed on September 6, 2006).

PURSUANT TO GENERAL INSTRUCTION E

Pursuant to General Instruction E to Form S-8 under the Securities Act, this Registration Statement is filed for the purpose of registering 1,000,000 additional shares of our common stock to be issued pursuant to the annual automatic increase provisions of the Clean Energy Fuels Corp. Amended and Restated 2006 Equity Incentive Plan, which are the same class as those securities previously registered on effective Forms S-8 filed with the Securities and Exchange Commission on August 14, 2007 (File No. 333-145434), April 14, 2008 (File No. 333-150331), January 16, 2009 (File No. 333-156776), June 5, 2009 (File No. 333-159799) and January 12, 2010 (File No. 333-164301), and the contents of those Registration Statements, as amended, or as modified or superseded pursuant to Rule 412 under the Securities Act, are incorporated by reference into this Registration Statement.

PART II

INFORMATION REQUIRED IN REGISTRATION STATEMENT

Item 8. Exhibits.

See Index to Exhibits.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement has been signed on its behalf by the undersigned, thereunto duly authorized, in the City of Seal Beach, State of California, on January 7, 2011.

CLEAN ENERGY FUELS CORP.

By: /s/ Andrew J. Littlefair

Andrew J. Littlefair

President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Andrew J. Littlefair and Richard R. Wheeler, jointly and severally, the undersigned's true and lawful attorney-in-fact and agent, each with full power of substitution and resubstitution, for the undersigned and in his or her name, place and stead, in any and all capacities (including the undersigned's capacity as a director and/or officer of Clean Energy Fuels Corp.), to sign any or all amendments (including post-effective amendments) to this registration statement and any other registration statement for the same offering, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agent, or his or her substitute, acting alone, may lawfully do or cause to be done by virtue hereof.

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 date indicated.

Name	Title	Date	
/s/ Andrew J. Littlefair Andrew J. Littlefair	President, Chief Executive Officer (Principal Executive Officer) and a Director	January 7, 2011	
/s/ Richard R. Wheeler Richard R. Wheeler	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	January 7, 2011	
/s/ Warren I. Mitchell Warren I. Mitchell	Chairman of the Board and Director	January 7, 2011	
/s/ John S. Herrington John S. Herrington	 Director	January 7, 2011	
/s/ James C. Miller James C. Miller, III	Director	January 7, 2011	
/s/ Boone Pickens Boone Pickens	Director	January 7, 2011	
/s/ Kenneth M. Socha Kenneth M. Socha	Director	January 7, 2011	
/s/ Vincent C. Taormina Vincent C. Taormina	Director	January 7, 2011	
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The following documents are filed as exhibits to this registration statement:

Exhibit Number	Description	
5.1	Opinion of Morrison & Foerster LLP	
23.1	Consent of Independent Registered Public Accounting Firm KPMG LLP	
23.2	Consent of Morrison & Foerster LLP (included in Exhibit 5.1)	
24.1	Power of Attorney (See Signature Page)	
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MORRISON & FOERSTER LLP

NEW YORK, SAN FRANCISCO, LOS ANGELES, PALO ALTO, SAN DIEGO, WASHINGTON, D.C.

NORTHERN VIRGINIA, DENVER, SACRAMENTO, WALNUT CREEK

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

January 7, 2011

Clean Energy Fuels Corp. 3020 Old Ranch Parkway, Suite 400 Seal Beach, California 90740

Re: Clean Energy Fuels Corp. Amended and Restated 2006 Equity Incentive Plan

Ladies and Gentlemen:

At your request, we have examined the Registration Statement on Form S-8 (the "Registration Statement") of Clean Energy Fuels Corp. (the "Company") to be filed with the Securities and Exchange Commission in connection with the registration under the Securities Act of 1933, as amended, (the "Securities Act") of an aggregate of 1,000,000 shares (the "Shares") of your common stock, \$0.0001 par value (the "Common Shares"), which will be issuable under the Clean Energy Fuels Corp. 2006 Equity Incentive Plan, as amended and restated (the "Plan").

We have examined the originals, or photostatic or certified copies, of such records of the Company and certificates of officers of the Company and of public officials and such other documents as we have deemed relevant and necessary as the basis for the opinion set forth below. In our examination, we have assumed the genuineness of all signatures, the legal capacity and competency of all natural persons, the authenticity of all documents submitted to us as originals and the conformity to original documents of all documents submitted to us as copies.

For the purpose of the opinion rendered below, we have assumed that in connection with the issuance of the Shares under the Plan, the Company will receive consideration in an amount not less than the aggregate par value of the Shares covered by each such issuance.

Based upon the foregoing examination and in reliance thereon, and subject to the qualifications, assumptions and limitations stated herein and in reliance on the statements of fact contained in the documents that we have examined, we are of the opinion that the Shares, when issued and sold in accordance with the terms set forth in the Plan, will be validly issued, fully paid and non-assessable Common Shares.

We consent to the use of this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act.

Very truly yours,

/s/ Morrison & Foerster LLP

Consent of Independent Registered Public Accounting Firm

The Board of Directors Clean Energy Fuels Corp.:

We consent to the incorporation by reference in the registration statement on Form S-8 of Clean Energy Fuels Corp. and subsidiaries of our report dated March 10, 2010, with respect to the consolidated balance sheets of Clean Energy Fuels Corp. and subsidiaries as of December 31, 2008 and 2009, 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, 2009, and the related financial statement schedule, and the effectiveness of internal control over financial reporting as of December 31, 2009, which report appears in the December 31, 2009, annual report on Form 10-K of Clean Energy Fuels Corp.

Our report dated March 10, 2010, on the effectiveness of internal control over financial reporting as of December 31, 2009, contains an explanatory paragraph that states that management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of BAF Technologies, Inc., which constituted 4% of total assets as of December 31, 2009 and 5% of revenues for the year then ended. Our audit of internal control over financial reporting of Clean Energy Fuels Corp. and subsidiaries also did not include an evaluation of the internal control over financial reporting of BAF Technologies, Inc.

Our report dated March 10, 2010, refers to a change in the method of accounting for business combinations.

/s/ KPMG, LLP

Los Angeles, California January 7, 2011