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VIA EDGAR

December 20, 2012

United States Securities and Exchange Commission Division of Corporation Finance Washington, D.C. 20549 Attn: Jennifer Thompson

RE: Clean Energy Fuels Corp.

Form 10-K for Fiscal Year Ended December 31, 2011

Filed March 12, 2012 File No. 001-33480

Dear Ms. Thompson:

On behalf of Clean Energy Fuels Corp. (the "Company"), set forth below are the Company's responses to the comments received from the staff (the "Staff") of the Securities and Exchange Commission in the Staff's comment letter dated December 14, 2012. The numbers of the responses and headings set forth below correspond to the numbered comments and headings on the letter from the Staff. For convenience, the text of the Staff's comments appears in italics in each item below.

Form 10-K for Fiscal year Ended December 31, 2011

Consolidated Financial Statements for the Year Ended December 31, 2011, page 64

Notes to Consolidated Financial Statements, page 71

Note 18 Fair Value Measurements, page 103

1. We note your statement at the bottom of page 3 of your response that "we believe that since historical volatility is a calculation made based on a series of transactions in the underlying stock over time (rather than a transaction as of a point in time), in its own right it has no place in ASC 820's fair value hierarchy...". We also note your statement in footnote (1) on page 4 of your response that "To the extent that a market participant uses historical volatility as an assumption, then it could be "promoted" from outside of the hierarchy to a Level 3 input as a market participant assumption. However, this would rank below the Level 2 implied volatility from traded options." The meaning of your statements is unclear to us since ASC 820-10-55-22b specifically refers to historical volatility as being within Level 3 in the fair value hierarchy. Additionally, you previously indicated to us that your implied volatility assumptions were a Level 3 input, not a Level 2 input, due to the extrapolation to a longer term; therefore, it does not appear that historical volatility would be ranked below implied volatility in your circumstances. Please better explain to us the meaning of your previous statements.

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Response:

The Company recognizes that ASC 820-10-55-22b refers to historical volatility as being a Level 3 input in the context of valuing a three-year option on exchange-traded shares. However, the Company notes that ASC 820-10-55-22b states "Historical volatility typically does not represent current market participants' expectations about future volatility, even if it is the only information available to price an option." Accordingly, the Company stated that "in its own right" historical volatility has no place in ASC 820's fair value hierarchy.

As the Company responded in its letter to the Staff dated October 2, 2012, the Company believes the process of extrapolating the short-term implied volatilities of its short-term traded stock options to match the term of the longer term of the warrants, while not quantitatively material to the overall volatility calculation in the periods presented, causes the implied volatility to be a Level 3 input verses a Level 2 input. The Company believes its use of a Level 2 input with an immaterial extrapolation calculation better matches the assumptions of market participants versus using an input such as unadjusted historical volatility, which typically does not represent current market participants' expectations about future volatility. The Company was not implying in footnote (1) that it's traded stock options extrapolated to match the term of the Series I warrants is a Level 2 input, but rather was emphasizing that the most significant element of its implied volatility Level 3 input was derived from its traded stock options, which in and of themselves are generally observable Level 2 inputs.

Furthermore, there are many different historical volatilities that can be calculated, using more or less data, some of which weight recent data more heavily. Unlike the guidance on employee stock options, which prescribes that the period to be used be at least commensurate with the expected term of the option, there is no such reference in ASC 820. Market participants that decide to consider historical volatility rarely look only at the historical term that matches the remaining life of the option or warrant being valued. Therefore, market participants that decide to use historical volatility generally

would not be expected to do so in the same manner that the Company was obliged to use in developing the value of its employee stock options to comply with ASC 718.

2. You indicate in the first full paragraph on page 6 of your response that determining the volatility of your warrants by solely relying on implied volatility "... maximizes the use of observable inputs or market participant assumptions, prioritized according to the fair value hierarchy." The meaning of this statement is unclear to us as it appears to us that, in your circumstance, both implied volatility and historical volatility are at Level 3 in the fair value hierarchy. Please better explain to us the meaning of your previous statement.

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Response:

The meaning of the Company's statement the Staff refers to on page six relates to the general principle in ASC 820 that valuation techniques used to measure fair value shall maximize the use of relevant observable inputs and minimize the use of unobservable inputs (i.e. referred to by the Company as giving priority to observable inputs or prioritizing according to the fair value hierarchy). The Company recognizes its valuation technique of extrapolating the term of its traded options over the term of the Series I warrants is categorized as a Level 3 input, however the Company believes the technique of using observable inputs and market participant assumptions pertaining to its traded options as a component of its valuation technique, is conceptually within the fair value hierarchy framework and represents a more representationally faithful prioritization of inputs.

3. You indicate in the third bullet point on page 4 of your response that the historical volatility of your common stock in the periods leading up to December 31, 2011 includes the credit crisis and its aftermath, which are not viewed as likely to recur, and that you believe a market participant would likely ignore that period when developing a warrant price. You also indicate that ASC 820 and ASC 718 require you to treat this period in your historical volatility differently. However, it is unclear to us that the accounting literature requires significantly different treatment of this period of extreme historical volatility. We note that ASC 718-10-55-35 states that the objective is to determine the assumption about expected volatility that market participants would be likely to use in determining an exchange price for an option. The guidance in ASC 718-10-55-35 through 55-41 states that for periods in which your share price was extremely volatile, due to a specific event which is not expected to recur during the expected or contractual term, you might disregard an identifiable time period in which the share price was extremely volatile due to this specific event. However, for periods where the share price was extremely volatile due to a general market decline, an entity might place less weight on its volatility during that time period because of possible mean reversion. We believe that under ASC 820 you would also adjust and/or weight your volatility assumptions for periods of extreme volatility in determining the historical volatility of your common stock. Please explain to us in better detail why you believe the treatment of periods of extreme volatility under ASC 718 versus under ASC 820 would differ such that it would produce the widely differing volatility ranges you identified for your employee stock options and your Series I Warrants. Given that both pieces of literature emphasize the views of market participants, please also explain whether you believe that market participant assumptions in ASC 718 are

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Response:

The Company believes the treatment of periods of extreme volatility under ASC 718 and ASC 820 differs based on the respective requirements of each accounting standard. That is, the Company considers the use of historical volatility to be inconsistent with the "exit price" notion in ASC 820, and therefore assumes market participants would adjust historical volatility to reflect current market conditions as of the measurement date which may or may not involve assumptions based on prior periods of extreme volatility. The Company recognizes the requirements under ASC 718 when considering whether to disregard an identifiable period from its historical volatility or place less weight on those periods and has given full consideration to the guidance in ASC 718-10-55-35 through 55-41.

The Company believes ASC 718 places differing degrees of emphasis on marketplace participant assumptions than ASC 820. The Company notes that the valuation technique used to measure fair value under ASC 820 should "maximize the use of observable inputs that reflect market assumptions that market participants would use in pricing the asset or liability based on market data obtained from sources independent from the reporting entity." ASC 718 does not have a requirement to maximize the use of observable marketplace participant assumptions.

In this comment, you stated "We believe that under ASC 820 you would also adjust and/or weight your volatility assumptions for periods of extreme volatility in determining the historical volatility of your common stock." We believe that market participants were already aware of the recent and prior historical volatility when they develop the bids and offers that were reflected in the implied volatility used to estimate the value of the warrants, and thus the Company had effectively allowed the market to signal the appropriate weighting, rather than to attempt to guess what weighting scheme might best reflect market participants views. Had the Company decided to calculate historical volatility giving greater weighting to more recent periods, the range of possible values would have approached the implied volatility used to value the warrants. The following table shows unweighted historical volatility for the full time period, plus three relevant segments:

Period	Unweighted Historical Volatility	Comment
Full	71.9%	
2010-2011	58.4%	more relevant
2008-2009	73.5%	credit crisis period
pre-2008	77.6%	IPOs have high vol

As companies continue to mature and/or grow, there is a secular trend to lower volatility, both for historical volatility and implied. Market participants are aware of this tendency and are likely to consider it when developing their volatility estimates. ASC 820 addresses this by requiring market participant assumptions to be considered to the maximum extent possible. ASC 718 does not, except to the extent that implied volatility is weighted in the volatility input used.

4. In light of the problems you have identified in using your historical volatility as an input in determining the expected volatility of your warrants, particularly due to the credit crisis and its immediate aftermath, please tell us why you applied a weighting factor of 75 percent to your blended historical volatility and 25 percent to implied volatility for purposes of determining the expected volatility of your employee stock options. Specifically address why you chose those particular weights for historical volatility versus implied volatility as opposed to other weighting schemes such as 25 percent historical volatility and 75 percent implied volatility.

Response:

The Company determined the fair value of its employee stock options in accordance with the requirements of ASC 718. The Company initially utilized historical volatility based solely on a peer group of companies given that the Company had been a public company with employee stock options outstanding for only three years as of December 31, 2010. Beginning in 2011, as the presence and volume of trading of the Company's options were deemed to be more relevant, the Company applied a weighting factor of 25 percent to implied volatility and 75 percent to our blended historical volatility. As previously discussed, while the Company believes it was appropriate to utilize implied volatility in its fair value based calculation of its employee stock options in 2011, the Company also notes that ASC 718 places constraints on utilizing implied volatility. Therefore the Company determined that a weighting factor of 25% was appropriate, but due to the mismatch of the traded option terms and the expected term of the employee stock options together with relatively low trading volumes in its options, felt a larger weighting for implied volatility under ASC 718 would not be appropriate. This rationale was not considered appropriate in the Company's fair value measurement of its Series I warrants since ASC 820 does not contain such constraints on the use of implied volatility.

5. Please explain in more detail how your blended historical volatility for purposes of valuing your employee stock options was derived. Specifically, please tell us how you determined and whether you adjusted or weighted the historical periods to derive blended historical volatility.

Response:

The blended historical volatility was derived by weighting the average historical volatility of a peer group of companies, whose historical trading period matched the term of the employee stock options of six years, and combining it with the weighting of the Company's historical volatility based on the trading days since its IPO date of May 24, 2007, which historical period did not cover the six year term of the employee stock options. The weighting of the average historical volatility of the peer group was based on the number trading days the peer group companies exceeded the Company's trading days up to six years. Therefore as the number of trading days of the Company approaches six years, less weight is given to the value of the average historical volatility of the peer group of companies.

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The historical periods used in the calculation were not adjusted or weighted for any other reasons to derive the blended historical volatility. The Company considered ASC 718-10-55-37(a) when valuing its employee stock options and determined that any extreme historical volatility, principally associated with the credit crisis, would not qualify for exclusion since the credit crisis was not specific to the Company. Furthermore, in accordance with ASC 718-10-55-37(a), the Company could not objectively separate the effects of the credit crisis, which affected the volatility of the Company's stock and the market in general for an extended period of time, from the normal volatility of the Company's stock. As described in the response to comment 3, the Company did employ a technique for using implied volatility for the warrants under ASC 820 that we did not believe was acceptable to value the stock options under ASC 718. Therefore, we used the weighting of historical and implied volatility to address this concern, using the weightings described in the response to comment 4.

6. We note your statement on page 5 of your response that you utilized reasonably practicable variables such as the most actively traded options as of the valuation date with the longest maturities at or near the strike prices of the Series I warrants to synchronize variables between the traded options and Series I warrants. Please provide us with more detailed information about how you determined the subset of traded options you used in determining expected volatility of the Series I warrants.

Response:

The Company utilized IVolatility.com to assist in the calculation of its implied volatility which used the surface volatility for open positions of the Company's traded options as of December 31, 2011. We utilized the implied volatility index from IVolatility.com which calculates volatility by using a proprietary weighting technique factoring the delta and vega of each option participating in the calculations. IVolatility.com uses four at-the-money options within each expiration date to solve for the implied volatility index. We understand that the level short term volatilities used would have been approximately the same had some other source, such as Bloomberg, been used instead of IVolatility.com. We believe this is because both vendors use the listed option transactions with simultaneous stock prices, both of which are a matter of record, to derive the implied volatility using models that have long ago entered the public domain. Thus the observed implied volatilities used by IVolatility.com's proprietary weighting technique would be the same inputs considered by other potential sources.

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If you should have any additional questions please contact me directly at (562) 493-7239.

Thank you for your consideration.

/s/ J. Nathan Jensen

J. Nathan Jensen

Vice President & General Counsel

Clean Energy Fuels Corp.

Andrew J. Littlefair, Chief Executive Officer Richard R. Wheeler, Chief Financial Officer Andrew D. Thorpe, Esq., Morrison & Foerster LLP

cc: